

AN EVALUATION OF AN EXPERIMENT TO PROVIDE LONG-TERM CARE IN RURAL HOSPITALS IN UTAH: VOLUME I SUMMARY REPORT

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ABSTRACT

The Utah Cost Improvement Project was initiated in 1973 as an experimental program to provide long-term care in acute care hospitals in rural Utah. This report describes the results of an evaluation of the Utah experiment during its first three years, 1973 to 1975.

The major findings are:

- (1) Long-term care utilization attributable to the experiment totaled approximately ten thousand days for the twenty-five participating hospitals in 1975. This represented a substantial increase in long-term care utilization by residents of rural Utah.
- (2) The project did not change acute care utilization patterns of participating hospitals. Average acute occupancy was nearly the same in 1972 and 1975 in the experimental hospitals, but total occupancy (including long-term care) increased from 48.5% to 52.2% during this period.
- (3) The average incremental (add-on) cost per long-term care day was approximately \$9.25 in 1975. This was less than half the cost per day in Medicare skilled nursing facilities during the same time period.
- (4) Although the program did not have a significant effect on the financial position of most participating hospitals, many administrators felt it played an important role in meeting community needs for long-term care.

The major conclusion drawn from the evaluation is that this program is a viable method of providing institutional long-term care in rural communities. In addition, if the program is to be implemented nationally, this report advocates that certain procedures, not undertaken during the experiment, be adopted to ensure the quality of care.

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FINAL SUMMARY REPORT

APRIL 1978



This report is made pursuant to contract #SSA-PMB-74-386 between the Health Care Financing Administration (HCFA), Department of Health, Education and Welfare and the Center for Health Services Research, University of Colorado Medical Center (UCMC). The amount charged to the Department of Health, Education and Welfare for the work resulting in this report (inclusive of the amounts so charged for any prior reports submitted under this contract) is \$342,069.00. The names of the persons, employed or retained by the contractor, with managerial or professional responsibility for such work, or for the content of the report, are Dr. Peter W. Shaughnessy and Dr. John E. Kralewski.

The Project Officer for this contract was James Lubitz, a staff member within the Office of Research, Office of Policy, Planning and Research. The views and opinions expressed in this report are the contractor's and no endorsement by the Health Care Financing Administration or Department of Health, Education and Welfare is intended or should be inferred.

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FOREWORD

The Utah Cost Improvement Project (UCIP) was an experiment designed to test the appropriateness of providing long-term care in rural acute care hospitals. The final evaluation reports consist of two volumes: a summary report and a technical report.

Volume I is intended to provide a synopsis of the UCIP experiment and evaluation for those interested in an overview of the background, findings, and conclusions associated with UCIP. Volume II contains detailed information on UCIP, data sources, and the analytic methods used to obtain the findings and the implications which follow from the findings. Unlike the summary report, Volume II is intended for the reader who is interested in technical details in areas such as reimbursement, health care finance, and research methods as they relate to the UCIP evaluation.

This document is intended for a broad audience and therefore written in a nontechnical style. Deliberate care has been taken to minimize the use of technical terms; in those instances where technical terms are required, brief explanations are given. The first chapter contains a capsule summary of the study background and major implications. The major issues associated with the swing-bed concept, the Utah experiment, and the evaluation of the experiment form the next chapter. The final two chapters present the findings, implications, and recommendations. While this summary is intended to be a self-contained synthesis of the results of the UCIP evaluation, the reader interested in technical and programmatic details should consult Volume II.



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CHAPTER I

SUMMARY

From the viewpoint of providing rural health care, the community hospital has long been regarded as a potential attraction in the recruitment of physicians to rural areas. More recently, with increased emphasis on cost containment and coordinated health services, the rural hospital has been viewed as a potential center for the provision of comprehensive health services. Nonetheless, the typical rural hospital experiences uneven demand for acute care, often causing low occupancy rates and financial problems. Small hospitals lack the financial advantages which can accrue from economies of scale and, in rural areas, from shared service arrangements. Therefore, while many rural communities have been favored by various federal and state sponsored hospital construction programs, which resulted in well equipped hospital facilities, these facilities are often financially unstable.

The Utah Cost Improvement Project (UCIP) allowed acute care hospitals in rural locations to be reimbursed for the provision of long-term care without having to satisfy certain regulations normally required to receive Medicare and Medicaid reimbursement for long-term care. Termed a "swing-bed" approach since it entailed the use of hospital beds to provide both acute and long-term care, the program initially was viewed as a means of providing needed long-term care in rural communities. However, the Utah experiment more recently has taken on increased importance as a cost containment program which takes advantage of existing hospital facilities to provide long-term care at low cost.

The swing bed has the potential to increase the efficiency of small acute care hospitals and to satisfy an unmet need for long-term care in rural communities. This alternative enables the administrator of the rural hospital to broaden the patient base across which hospital costs are allocated. Further, it allows rural patients who require skilled nursing care to remain in their own communities after their acute care needs are met. To the extent that this approach enhances the viability of the rural hospital, acute and long-term care needs in rural areas are more likely to be met.

The Utah swing-bed experiment was initiated in January, 1973, and was the result of negotiations between representatives from the Utah State Division of Health and the Social Security Administration. By 1974, there were 25 hospitals in rural Utah participating in the experiment. The evaluation described here pertains to the experimental period from 1973 to 1975, although the Utah experiment was continued through 1978. The reimbursement formula for long-term care was based on the concept of incremental cost. That is, reimbursement was based on the notion that the acute care hospital exists to serve acute care patients and that reimbursement for long-term care should pertain only to the "add on" or incremental cost associated with providing such care.

The Utah experiment was premised on the assumption that the continued viability of the small rural hospital is desirable. Additionally, the experiment involved several assumptions about the provision of long-term care: (1) certain regulatory requirements of Medicare and Medicaid for the provision of long-term care may be unnecessary in acute care hospitals and, further, they represent potential barriers to the provision of long-term care in such hospitals in rural communities, (2) the regulatory structure may be modified (on the basis of experimental findings) so that rural hospitals may provide such care, (3) hospitals are able to provide adequate long-term care at a reasonable cost, given the existence of available services and staffing resources, and (4) sufficient need for institutional long-term care exists in rural communities to make a special program worthwhile.

The evaluation of UCIP focused on an assessment of the cost, utilization patterns, organizational factors, and the capacity of the UCIP hospitals to provide long-term care. The major conclusions of the evaluation are as follows:

- 1. Increases in long-term care utilization and changes in the patterns of such utilization during the experimental period in Utah suggest the existence of an unmet need for institutional long-term care in rural Utah.
- 2. The use of acute care hospital beds to provide institutional long-term care to skilled nursing patients is less costly than the primary institutional alternative, the skilled nursing facility. This conclusion is based on the incremental cost of providing long-term care which assumes the hospital plant exists for purposes of providing acute care.
- 3. In many respects, the capacity to provide long-term care in rural hospitals is adequate relative to other institutional alternatives available to rural patients. However, some long-term care services were not uniformly provided by all hospitals. Although a thorough quality of care study was not conducted as part of this evaluation, it appears that it may be appropriate to require that hospitals provide certain rehabilitative and social services if a swing-bed program is implemented nationally.
- 4. Based on the above three points, the evidence available suggests that an unmet need for long-term care exists in many rural communities and that acute care hospitals represent a cost-effective means of satisfying this need. With widespread implementation of this program, it is likely that total health care costs would increase as a result of increased long-term care utilization. Yet, existing facilities would be more effectively utilized and the unit cost of patient care lowered.
- 5. General reimbursement guidelines for long-term care have been developed as part of this evaluation. The structure of a comprehensive reimbursement scheme, however, should be based on a more extensive analysis of the costs of the swing-bed

- approach. In addition, the quality of long-term care should be thoroughly analyzed and regulatory mechanisms for quality assurance should be developed where appropriate.
- 6. Federal legislation which would provide for the implementation of a swing-bed program is presently under consideration. Such legislation should incorporate the results of this study, as well as results from the more refined evaluation of the current swing-bed experiments in Texas, Iowa, and South Dakota. If legislation is passed prior to the completion of the ongoing evaluation, it is recommended that it have the flexibility to incorporate additional findings in the areas of reimbursement and quality assurance.



CHAPTER II

POLICY ISSUES AND STUDY BACKGROUND

A. THE SWING-BED CONCEPT

Prior to the passage of Medicare and Medicaid legislation in 1965, it was not unusual for hospitals to care for both acute and long-term care patients. With the inception of Medicare and Medicaid, however, the flexibility of the acute care hospital to provide long-term care was curtailed. Today, if a hospital is to be reimbursed for long-term care by Medicare or Medicaid, it must be certified by the Department of Health, Education and Welfare to provide such care. 2 Certification covers two levels of long-term care, skilled and intermediate care, which are discussed in the following section. The certification requirements call for a hospital to provide a physically distinct part (e.g., building, wing, corridor) exclusively for the provision of long-term care. In addition to the distinct-part requirement, the hospital is also required to maintain separate books, cost accounting procedures, etc., for long-term care. Other certification conditions require that long-term care facilities, including distinct-part skilled nursing facilities (SNFs) of hospitals, provide such specialized services as physical therapy, social services, and patient activities. These services are in addition to those required for the hospital to receive Medicare and Medicaid reimbursement for acute care.

The number of beds in Medicare-certified SNFs, both free-standing and hospital based distinct parts, has decreased during the past several years. Between 1969 and 1973, the period just prior to the implementation of UCIP, the number of Medicare-certified skilled nursing beds

Long-term care patients are often cared for in nursing homes and do not normally require the same intensity of care (particularly physician care) as acute care patients. However, they require medical, nursing, and supportive health care services for a prolonged period of time. Long-term care patients may include the developmentally disabled, the mentally ill, and the terminally ill. While such patients are not necessarily confined to certain age groups, those most prone to chronic disease and thus often requiring continuous care are the elderly.

The three major types of long-term care facilities, skilled nursing, intermediate, and personal care facilities are defined in Appendix A of Volume II. Medicaid certification pertains to skilled nursing and intermediate care facilities. The skilled nursing facility certification requirements, termed skilled nursing facility conditions of participation, are also listed in Appendix A of Volume II.

³ Reasons for this decrease are discussed in Volume II.

decreased from 342,000 to 288,000. This decrease has resulted in a limited number of certified long-term beds which may have impeded the adequate provision of long-term care in rural communities. In addition, rural areas have difficulty attracting health care personnel, such as physical therapists, necessary to satisfy certification requirements. Assuming that an unmet need for long-term care exists among Medicare enrollees (representing over 95 percent of all individuals 65 years old and older), especially in rural areas, four potential solutions to this problem may be considered.

First, additional certified facilities could be built to alleviate the potential unmet need. However, the substantial increase in capital (building) costs that would be required renders this alternative unattractive.

Second, Medicare and Medicaid requirements could be lessened, thereby making it easier for nursing homes to receive Medicare and Medicaid reimbursement. While it is has not been proven that regulatory standards are strong determinants of the quality of care provided, agreement exists that all providers of health care should meet certain minimum standards. Further, in light of the serious questions being posed about nursing home abuses, it appears both substantively and politically unwise to move forward with a program designed to lessen regulatory standards for the provision of long-term care in nursing homes. 6

Third, the Medicare provision which allows hospitals to be reimbursed at acute care rates for providing skilled nursing care when skilled nursing beds are not available could be more widely used. However, Medicaid (as well as their payors) has no similar policy. The provision deals with patients already in a hospital and does not allow the transfer of

U. S. Department of Health, Education and Welfare, Social Security
Administration, Health Insurance Statistics, HI-75, 2 February, 1977.

Although the four alternatives discussed here were not systematically analyzed in the decision process which led to the UCIP experiment, a discussion of the alternatives provides a framework for presenting the UCIP experiment and its subsequent evaluation. More information on the historical nature of how the Utah project evolved is contained in Volume II.

⁶This statement is not intended to prejudge either the performance of the nursing home industry or the relationship between long-term care regulations and the quality of long-term care. From a regulatory perspective, the nursing home industry has argued, and done so validly in many instances, that efforts to regulate nursing homes have been so fragmented as to produce a number of inefficiencies in our long-term care delivery system.

Health Care Financing Administration, Part A Intermediary Manual, Part 3--Claims Process (HIM 13-3), Section 3421.2(A), reprinted September 1977.

skilled patients from another institution to a rural hospital. Further, the provision is not intended to be an organized program aimed at hospital, community, and patient needs--nor are quality standards addressed. Finally, since long-term care reimbursement is at acute care rates under this provision, widespread usage of the provision would run counter to cost-containment principles.

Fourth, acute care hospitals in rural areas could be encouraged to provide long-term care both through financial incentives and through the lessening of the long-term care requirements for such hospitals. Weakening long-term care regulations for acute care hospitals is substantially different from weakening regulations for nursing homes because hospitals must satisfy basic health care regulations in order to receive acute care reimbursement from Medicare and Medicaid. The acute care regulatory standards ensure a range of services for the long-term care patient. Further, in rural areas where hospitals are frequently underutilized, acute care beds can be used as swing-beds for both acute and long-term care patients. This alternative partially overcomes the weaknesses associated with the first three, since capital costs associated with new construction are minimized, certain types of regulatory standards are in effect, and reimbursement need not be at acute care rates. Thus, the swing-bed alternative represents a return to an earlier practice in the pre-Medicare and Medicaid era. However, current circumstances are different in that there exist hospital regulations which must be satisfied in order for an acute care facility to receive Medicare and Medicaid reimbursement for long-term care.

Despite its apparent logic, a number of questions about the swing-bed concept had to be addressed prior to considering its implementation on a nationwide basis. Therefore, the swing-bed alternative was implemented through an experimental program in rural Utah. The evaluation of the experiment was designed to determine the potential advantages and disadvantages of the swing-bed alternative in rural areas.

B. THE UTAH COST IMPROVEMENT PROJECT

The swing-bed experiment in rural Utah, termed the Utah Cost Improvement Project (UCIP), began in January, 1973. It was scheduled to end in December, 1975, but was extended through 1978. The Program Experimentation Branch, Bureau of Health Insurance, Social Security Administration (SSA)⁸ contracted with the Utah State Division of Health to carry out the experiment. The Medicare fiscal intermediary in Utah, Blue Cross of Utah, was responsible for Medicare reimbursement for long-term care to participating UCIP hospitals.

In 1974, the Program Experimentation Branch moved to the Division of Health Insurance Studies, Office of Research and Statistics, SSA. In the spring of 1977, the Department of Health, Education and Welfare reorganization resulted in the Utah experiment being administered at the federal level by the Office of Demonstrations and Evaluations which is located in the Office of Policy, Planning and Research of the Health Care Financing Administration.

The Utah Medicaid program also participated in the experiment. While many patients paid on an out-of-pocket basis, Medicare and Medicaid were the only third-party payors who reimbursed under the experiment. Medicare reimbursed for only one level of long-term care, whereas Medicaid reimbursed for three levels.

The level that most resembles traditional inpatient acute care, termed skilled nursing care, was covered by both Medicare and Medicaid. The skilled nursing care patient is one whose acute care needs have been met, but who usually requires extended nursing care under the supervision of both physician and professional registered nursing personnel. A skilled nursing facility must have a transfer agreement with an acute care hospital to promptly provide acute care services when necessary.

The other two levels of care were covered by Medicaid only. Intermediate care patients generally require supportive nursing care which often may be provided by a licensed practical nurse rather than a registered professional nurse. Care at the intermediate level is beyond that available at a boarding home and, as a practical matter, is usually available only through institutional facilities. Personal care, as it pertained to Utah Medicaid during 1973-1975, was basically a second level of intermediate care not requiring as much medical care as the first level just described. Personal care normally refers to residential care which is essentially custodial in nature and is the primary function of many boarding and rest homes. Medicaid does not reimburse for residential care.

The skilled nursing facility regulations are identical for both Medicare and Medicaid. Although the federal Medicare and Medicaid standards for acute care hospitals are more extensive than the regulations for skilled nursing facilities, they overlap substantially. Those skilled nursing care regulations which did not overlap with the acute care regulations were not applied to the hospitals in this experiment. Thus, while the participating hospitals (all of which satisfied the Medicare and Medicaid hospital regulations) were not required to comply with those regulatory standards unique to skilled nursing care, as hospitals they met the requirements common to both acute and skilled care. Some of the regulations specific to skilled nursing care include requirements for rehabilitation services (physical, speech, and occupational therapy), rehabilitative nursing, dental services, social services, and patient activity space. Medicaid regulations for intermediate and personal care in Utah were not enforced in the experimental hospitals.

C. THE UCIP EVALUATION

In order to evaluate the Utah experiment, the Evaluative Studies Branch, Division of Health Insurances Studies, Office of Research and Statistics, SSA, contracted with the University of Colorado Medical Center to conduct an evaluation of the Utah experiment for the period 1973-1975. The UCIP

These regulations are found in the first appendix of Volume II.

evaluation began in July, 1974, and focused on four different areas: organizational factors, project utilization, financial considerations, and hospital capacity to provide long-term care. The major questions addressed in each of these areas are listed below.

1. Organizational Factors

- (a) When the experiment was implemented, what types of problems were encountered at the hospital level? Were organizational changes made at the hospital level in order to implement and maintain the swing-bed method of providing long-term care?
- (b) What arrangements existed between other organizations and the participating hospitals? How was the project administered at the hospital level and at the state level?
- (c) How did hospital administrators, hospital staff, and community residents respond to the swing-bed program? Were their attitudes affected by problems related either to patient care or to the administration of the project?
- (d) What organizational factors were influential in determining swingbed utilization, cost, and care provided? How should these factors be taken into consideration if the program were implemented nationally?

2. Project Utilization

- (a) Were there any indications of true unmet need for long-term care in rural Utah?
- (b) To what extent were swing beds used to provide long-term care?
- (c) Did the provision of long-term care in UCIP hospitals alter acute care utilization patterns? Did total hospital utilization increase with the swing-bed program?
- (d) How did utilization differ by Medicare, Medicaid, and private-pay patients?
- (e) Did hospitals tend to deliver more skilled nursing care than intermediate or personal care to long-term patients? Are there indications that long-term care patients were inappropriately classified?
- (f) How can the results of the utilization analysis contribute to developing and maintaining a national swing-bed program?

3. Financial Considerations

(a) Given that there was a substantial unused hospital bed capacity to provide long-term care, i.e., that the participating hospitals were, on the average, less than 50 percent occupied, what was the "add on" or incremental cost of providing long-term care?

- (b) If costs were not regarded as incremental, what would be the full cost of providing long-term care in acute care hospitals in rural areas?10
- (c) How do the incremental and full costs of providing long-term care (by means of the swing-bed method) compare with the cost per long-term care patient day currently paid by Medicare for skilled nursing care?
- (d) Rural hospitals are often underoccupied and in financial difficulty. Does the swing-bed alternative increase the financial stability of such hospitals?
- (e) How are acute care costs influenced by the provision of long-term care?
- (f) How should the results of the financial analysis be taken into consideration if the swing-bed program were to be implemented nationally?
- 4. Hospital Capacity to Provide Long-Term Care
- (a) If the UCIP hospitals had been regulated in accord with Medicare long-term care standards, which regulatory standards would have been satisfied and with what frequency? In this regard, did UCIP hospitals which had long-term care experience differ from those which did not have such experience prior to the experiment?
- (b) Did UCIP hospitals provide care to different types of long-term care patients in comparison with Medicare-certified skilled nursing facilities in Utah?
- (c) How did nursing time spent per long-term care patient in UCIP hospitals compare with time spent in nursing homes?
- (d) Although a quality of care study was not part of the evaluation, what inferences can be drawn from the answers to the above three questions regarding the quality of long-term care provided in UCIP hospitals? Specifically, should certain regulatory standards which were not applied under the experiment be reinforced, altered, and/or replaced? How should the results of the assessment of hospital capacity to provide long-term care be taken into consideration if the swing-bed concept is implemented on a more widespread basis?

The incremental cost of a long-term care patient day is obtained by assuming that the physical plant and the capacity of the hospital already exist for the purpose of providing acute care. The incremental cost is simply that amount of additional cost incurred in order to provide long-term care. The full cost of long-term care is obtained by allocating total hospital costs to acute care patients and long-term care patients under the assumption that the hospital was built and maintained for purposes of providing both acute care and long-term care.

The final questions in each of the above four areas pertain to conclusions and implications based on the results of the evaluation. Therefore, these four questions are not directly addressed in the third chapter; rather they provide a linkage with the fourth chapter which deals with the implications of the evaluation.



CHAPTER III

FINDINGS

A. INTRODUCTION

The findings of the UCIP evaluation are presented as responses to the questions given in the preceding chapter. Major findings are emphasized and methods are presented only when they are essential to an understanding of the results. Implications and recommendations which follow from the results are discussed in Chapter IV.

The study findings pertain primarily to the experimental period from 1973 to 1975. Some are based on comparisons involving these years and the two pre-UCIP years, 1971 and 1972. In a few instances, information pertaining to years later than 1975 is discussed. Results based on post-1975 data are few in number since audited 1976 Medicare Cost Reports were not available at the time of the final analysis (Medicare Cost Reports were the primary data source for the utilization and financial analyses).

Critical to an understanding of the findings and implications of this report is the fact that the Utah experiment involved small rural hospitals. During the year prior to the inception of UCIP, 1972, the average UCIP hospital had 37 beds and an occupancy rate of approximately 47 percent. Immediately prior to and during the experiment, capital expansion was minimal in these hospitals. Few structural or major patient care changes took place. Some hospitals had only two or three admitting physicians, with the majority having fewer than nine admitting physicians.

Further, the majority of UCIP hospitals had little long-term care experience prior to the experiment; in fact, only two participating hospitals reported having used the Medicare option which allows hospitals to be reimbursed for skilled nursing care at acute care rates. While the evaluation did not attempt to assess the impact of the swing-bed approach on costs associated with the use of this option, it is clear that more widespread implementation of the swing-bed method would serve to decrease or eliminate (legislatively perhaps) the use of this option.

Ten of the 25 UCIP hospitals had distinct-part skilled nursing facilities prior to or during the UCIP experiment. Two of these hospitals were excluded from many analyses because they were outliers.² Five of the

Several UCIP administrators were not aware of the option (summarized on pages 6 and 7 of Chapter II) and several others expressed some hesitancy to use it in the pre-experimental period due to the possibility of retroactive claim denials.

One had very few admitting physicians for much of the UCIP period and provided primarily long-term care during that period. The other was an extremely small (ten bed) hospital whose cost reporting practices did not permit the type of financial analyses required as part of this evaluation.

remaining eight hospitals with long-term care experience maintained their certified distinct parts throughout the course of the experiment. (In these hospitals Medicare skilled nursing patients were placed in acute care swing beds as part of the experiment, while non-Medicare long-term care patients, i.e., Medicaid and private pay, were placed in acute swing beds only when the distinct-part beds were fully occupied.) The remaining three hospitals discontinued their distinct-part SNFs during UCIP.

B. ORGANIZATIONAL FACTORS

This section focuses on the operation of the Utah Cost Improvement Project at the hospital level. The findings presented here deal with problems encountered by hospitals participating in the project, the administration of the project, and attitudes of administrators and staff toward the project. Hospital administrators were the primary source of information.

1. When the experiment was implemented, what types of problems were encountered at the hospital level? Were organizational changes made at the hospital level in order to implement and maintain the swing-bed method of providing long-term care?

The major problems reported by hospital administrators were related to both the provision of patient care and the administration of the project. In terms of the provision of long-term care, the most frequently mentioned problems were directly related to either patients or the personnel involved in the care of those patients. Administrative problems were attributable largely to the reimbursement procedures and to the process involved in enlisting the participation of hospitals in the project.

Several of the administrators contended that long-term care patients (1) required more care than acute patients; 4 (2) were often ambulatory and tended to wander about the hospital (into operating rooms, nurseries, etc.); and (3) were not always visited frequently enough by family members, resulting in greater responsibilities for the hospital staff to meet social and emotional needs of patients. Further, since the UCIP swing-bed approach did not require the hospital to provide a distinct part or separate area for long-term care patients, an acute care patient who was transferred to long-term care status was not necessarily moved to a different room. In some instances, the fact that the patient was not transferred to a new room when he became a long-term care patient resulted in the expectation on the part of the patient and/or his family that he would continue to receive acute care. This expectation became a problem to hospital staff members responsible for explaining that long-term care was not as intense as acute care.

Other long-term care-related problems mentioned included concern about facilities, services, and bed capacity.

With respect to nursing care, this contention was not supported by the Nursing Time Observation Study. This study, summarized in Section E of this chapter, indicated substantially more nursing time was spent per acute care patient.

The personnel-related problems mentioned most frequently by administrators were the lack of sufficient orientation and education about long-term care and the lack of physician involvement in the project. Administrators viewed the orientation of physicians as a responsibility of the Utah State Division of Health; yet the Division of Health had difficulty convening physicians for orientation purposes. Therefore, many physicians who were on the admitting staffs of the project hospitals were not well-acquainted with the operation of the project.

When interviewed in 1975, one administrator reported a change in his hospital's physical plant even though the majority of the administrators reported that changes in physical space were needed. None reported adding services exclusively for the benefit of long-term care patients.

Three factors may have curtailed structural, administrative, and staffing changes which might occur under national implementation of a swing-bed program. First, administrators were required to record whether any labor or capital expenditures were made for the specific purpose of providing long-term care. The experiment was premised on the notion that the incremental cost of providing long-term care would be relatively low since the acute care physical plant already existed. The requirement to document long-term care labor and capital expenditures may have served as a disincentive to incur such costs. Second, the UCIP incentive payment (discussed in Section D) which was based on project utilization and cost would be lowered if new capital or staffing costs were incurred as a result of the provision of long-term care. Third, since UCIP was an experimental and therefore temporary program, the incentives for administrators to incur capital costs to provide long-term care were naturally minimal.

Administrators mentioned problems related to the administration of the experiment more often than they mentioned problems related to patient care. Over 40 percent of the administrators felt that the reimbursement provided under the experiment did not cover long-term care costs. However, it is not traditional for administrators to think in terms of incremental costs. Therefore, reimbursement was a problem not necessarily because it was inadequate, but because many administrators perceived it to be inadequate.

More than a third of the administrators expressed concern about the methods used by the Division of Health to enlist hospital participation in the experiment. Due to perceived time constraints regarding a final contractual agreement with SSA, staff members at the Division of Health pressured several hospital administrators toward participation. Since the Division of Health has (or is closely affiliated with state agencies which have) responsibilities in such areas as hospital licensure, certificiation, and Medicaid reimbursement, several administrators considered

This administrator added a dayroom/activity space for long-term care patients. The lack of physical space changes in participating hospitals was confirmed by an architectural and structural study of three UCIP hospitals.

it politically expedient to participate in UCIP, despite their reluctance to do so. While this pressure should be viewed in light of the strains caused by the pre-contractual deadline, it nonetheless was a source of irritation for several hospital administrators.

Approximately one-third of the administrators reported that paperwork was excessive, especially in the early stages of the experiment. It was necessary to (1) maintain patient records, (2) report monthly utilization statistics to the Division of Health, (3) prepare separate billings for the same patients since many were admitted as acute care patients and then transferred to long-term care status, (4) remain in contact with and/or address UCIP questions and concerns to the Division of Health, and (5) complete additional forms due to the nature of the experimental reimbursement methods.

Reimbursement for long-term care patients was provided by Medicare, Medicaid, and/or out-of-pocket revenues. Many of the problems with paperwork were due to the billing requirements of Medicaid. In order to be reimbursed for project patients billed to Medicaid, participating hospitals had to complete separate forms for each ancillary service used by the patient. Thus, for those hospital administrators unaccustomed to providing Medicaid long-term care, the amount of paperwork required by the project was substantially increased because they were now admitting patients who required a different set of forms for reimbursement.

Efforts by the Division of Health staff to decrease the amount of paperwork resulted in a reduction in the number of forms required by Medicaid in 1976. Participating hospitals were no longer required to complete separate forms for each ancillary service provided. In addition, by the later stages of the experiment, a learning process had taken place. Concerns about paperwork lessened over time as certain patient care and reimbursement procedures became more widely known. Further, the likelihood of retroactive claim denials decreased because of the improved knowledge regarding the completion of claims forms for long-term care patients. By the end of the experimental period under evaluation, complaints about paperwork appeared to approximate that level normally encountered in discussions about Medicare and Medicaid procedures with hospital administrators.

2. What arrangements existed between other organizations and the participating hospitals? How was the project administered at the hospital level and at the state level?

A number of organizations were involved in the development of the project. In particular, two organizations, the Utah State Division of Health and Blue Cross of Utah, were primarily responsible for administering the project at the hospital level. SSA was significantly involved in the project design during the contract negotation process and monitored the activities of the Division of Health and Blue Cross but had limited contact with the participating hospitals. The Utah Hospital Association and Utah Medical Association were co-sponsors of the project, but their involvement was limited to endorsement of the project rather than actual administration at the hospital level.

The Utah Professional Review Organization (UPRO), the Professional Standards Review Organization (PSRO) in Utah, was not operational in rural Utah hospitals until April, 1975. A nurse coordinator was responsible for administering UPRO in the hospital and, along with acute care responsibilities, for monitoring utilization by UCIP patients. Administrators at these hospitals suggested that the nurse coordinator played an important utilization review role in the transfer of acute care patients to long-term care status.

Although the Division of Health staff had primary responsibility for administering the project, the Blue Cross staff actively worked with the Division of Health on major activities at the hospital level. During the early stages of the experiment, staff members of both the Division of Health and Blue Cross visited participating hospitals. A number of these early visits were aimed at resolving questions about reimbursement, including lack of awareness and/or disagreement about reimbursement procedures among hospital administrators. These on-site visits continued throughout the duration of the evaluation period.

The initial orientation to the project was a workshop conducted on June 1, 1973, for hospital administrators, business office personnel, and directors of nursing. The workshop included a presentation by an SSA staff member on incentive reimbursement projects, a discussion of the objectives of the project by the UCIP principal investigator, and general comments on reimbursement by a Blue Cross representative. Separate sessions were then held for administrators, business office personnel, and directors of nursing. The special session for administrators dealt with small hospital administration, principles of the project, and reimbursement considerations. The business office session concerned billing mechanisms, especially Medicare and Medicaid billing. The directors of nursing session included a discussion of small hospital nursing, rehabilitation in small hospitals, staffing, and levels of care for long-term patients.

Additional orientation was provided through written guidelines, ranging from memos sent to hospitals during the first six months of the project to a more comprehensive set of guidelines developed during the third quarter of 1973. A series of brochures which described the project to physicians, nurses, and patients was published in January, 1974, and a monthly newsletter discussing UCIP progress, activities, and problems was developed and sent to participating hospitals beginning in the third quarter of 1974.

Continuing education under UCIP was provided by a basic course in health facilities administration and by four regional nursing workshops. 6 Meetings of the Utah Small Hospital Association (which included all 25 project hospitals) provided opportunities to discuss problems and questions related to the experiment. Such meetings were attended both by hospital administrators and staff at the Division of Health.

The health facilities administration course was conducted from October 12, 1973, through October 4, 1974, and was attended by 13 administrators and staff members from nine project hospitals. The regional nursing workshops were conducted during the second quarter of 1975. Also, regional meetings which started in the third quarter of 1974 continued for the duration of the evaluation.

Members of the Utah Medicare certification staff, the hospital licensure program, and the Medicaid program were also involved in the experiment due to the roles of their respective organizations. They assisted the Division of Health project staff in conducting orientation and education programs and accompanied staff members on a number of site visits to participating hospitals.

Thus, the principal organizations involved in the administration of the project at the hospital level were the Division of Health and Blue Cross of Utah. The principal methods used to promote utilization of the project were workshops, written guidelines, regional meetings, and site visits.

3. How did hospital administrators, hospital staff, and community residents respond to the swing-bed program? Were their attitudes affected by problems related either to patient care or to the administration of the project?

In response to an administrator survey conducted in 1975, a majority of hospital administrators said they favored the UCIP experiment. Approximately two-thirds of the administrators felt it should be extended beyond 1975 in rural Utah. The reason most frequently cited for favoring the UCIP experiment was its benefit to rural communities. Most administrators felt that the swing-bed alternative provided a means to satisfy the needs of long-term care patients in their communities.

Other frequently mentioned reasons for administrators' support of the UCIP approach were increased revenues and increased occupancy. 7 Several UCIP administrators whose hospitals had certified distinct parts indicated that the UCIP experiment allowed more flexibility for the use of both distinct-part and acute care beds. Some administrators also stated that a distinct part was not well suited to meeting long-term care needs in rural areas. The major criticism of the distinct-part relative to the swing-bed approach was the lack of flexibility with the distinct part in admitting and caring for patients in a small hospital with relatively few beds. Several administrators felt that long-term care patients received better care in their hospitals than in the nursing home alternatives available in their communities.

When asked about continued participation in the swing-bed program in 1975, 17 of the 25 administrators favored an extension of the project, although three thought that it was inappropriate for their hospitals.

As discussed in the next two sections, however, the increases in revenues and occupancy were not substantial. Nonetheless, from an organizational perspective, the fact that administrators supported the UCIP approach for reasons of increased revenues and utilization is an attitudinal finding with potential ramifications if the swing-bed method is implemented more widely.

⁸Of these three, two reported that their hospital lacked the capacity to provide long-term care, while one reported that his admitting physicians were opposed to the program.

The administrators who opposed an extension of the experiment expressed concerns about the appropriateness of providing long-term care in an acute care hospital and about the adequacy of the reimbursement formula for long-term care. It should be noted that, although slightly more than one-third of the administrators expressed concern about the enlistment pressures, this concern apparently did not affect the desire to have the project extended in their hospitals.

As previously stated, many physicians were not well acquainted with the Utah experiment. Yet, most physicians were reported to favor the experiment. The reasons given for physician support were similar to those reported by administrators. In addition, physicians suggested that they were able to visit long-term care patients more often in the hospital (than in a nursing home) in light of their regular hospital visits to acute care patients. Physician opposition appeared to be based on general resistance to federal and state intervention in health care, as well as on a perceived need to have available bed capacity in the hospital in times of emergency. It is important to point out that physicians appeared to become more positive over time (from 1975 to 1977). This general trend in direction of the more supportive physician attitude was accompanied by an increase in physician awareness of the entire program.

In 1975, 70 members of the nursing staffs in participating hospitals were also interviewed. Less than 40 percent were aware that an experimental program in long-term care was being administered in their hospital. Nevertheless, all were aware that long-term care was being provided in their hospital. Of the 26 nurses who were aware that UCIP was an experimental program, all but three felt that the experiment should be extended and that it was a worthwhile concept. The primary reasons given by nurses for favoring (and/or opposing) the concept were the same as those given by administrators and physicians.

In order to assess the level of community awareness and potential importance of various community factors, a survey was conducted in nine communities served by UCIP hospitals. A total of 319 residents were interviewed including 157 individuals involved in the delivery of health care (e.g., physicians, nurses, pharmacists, non-medical hospital staff, etc.) and 162 residents not involved in health care delivery. 157, 42 percent were unaware of the UCIP experiment while 87 percent of the 162 were unaware of UCIP. In general, the community survey revealed little community awareness of either the experimental program or the availability of long-term care in acute care hospitals. It was also apparent that the boards of trustees in rural hospitals had been informed about the experiment by their administrators. Board members tended to favor the experiment. Finally, on the basis of information obtained from hospital personnel and the staff at the Division of Health, it appeared that patients and family members of patients who received longterm care under UCIP were generally satisfied with the care provided.

C. PROJECT UTILIZATION

The utilization findings are presented in terms of two categories of UCIP hospitals. The first category is composed of the "non-LTC" UCIP hospitals, i.e., 15 of the 25 experimental hospitals which had no long-term care (LTC) experience in 1971 or 1972. For these hospitals, it was possible to attribute all long-term care utilization to the experiment. The second category was composed of ten hospitals which had prior experience with long-term care, including five hospitals with Medicarecertified distinct parts, three hospitals with Medicaid-certified distinct parts, and two hospitals which had provided non-certified distinct parts, and two hospitals which had provided non-certified long-term care. For these hospitals, termed the "LTC" hospitals, only part of the long-term care utilization was attributable to the experiment. (The part attributable to UCIP is discussed later in this section.) As mentioned earlier, two of the ten LTC hospitals were excluded from the utilization and financial analyses since they were statistical outliers.

 Were there any indications of true unmet need for long-term care in rural Utah?

By analyzing the supply of long-term care beds per capita and the use of such beds over time, this section provides an overview of the availability and utilization of long-term care in Utah. Figure 1 demonstrates that Utah had fewer nursing home beds and higher nursing home occupancy rates in 1971 than either the entire United States or the rest of the Mountain Region.

Following the trend throughout the country, the number of Medicare-certified skilled nursing beds per 1,000 enrollees declined steadily between 1971 and 1975 in the Mountain Region and in Utah. In fact, Utah had fewer Medicare-certified skilled level beds per 1,000 enrollees than the rest of the Mountain Region yet saw a more rapid decline in certified beds per enrollee between 1971 and 1975. Although Medicare-certified nursing home beds per enrollee were declining, the total number of long-term nursing care beds per elderly remained approximately the same between 1971 and 1975, implying a shift from Medicare to Medicaid and private pay. 10

Between 1971 and 1975, the number of rural Medicare-certified skilled nursing beds per 1,000 rural enrollees decreased from 5.8 to 4.7. These

The 1971 and 1975 figures for Medicare SNF beds per enrollee in Utah were 11.9 and 4.4, respectively. The analogous figures for the rest of the Mountain Region (consisting of Idaho, Montana, Nevada, Wyoming, Colorado, Arizona, and New Mexico) were 16.5 and 10.2, while the U. S. figures were 15.1 and 11.9, respectively.

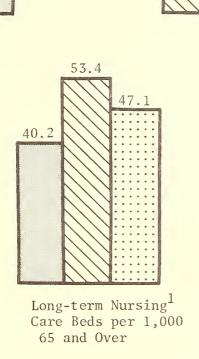
Nursing care beds per 1,000 population age 65 and over were 61.2, 65.1, 67.1, 66.1, and 63.3 for the years 1971 through 1975, respectively. Data on nursing care beds were provided by the Bureau of Medical Care Services, Utah State Department of Social Services.

FIGURE 1:

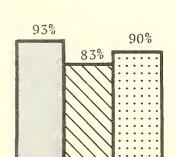
A Comparison of Utah, the Mountain Region, and the United States: Long-Term Care Beds Per 1,000 Population 65 and Over and Occupancy Rates in 1971

Mountain States

Excluding Utah



Utah



United

States

Long-term Nursing Care Home Occupancy Rates

Source: 1972-73 Health Resources Statistics, NCHS.

Long-term nursing care homes are nursing homes which provide nursing care other than personal or boarding care.

figures were obtained by dividing Medicare SNF beds in non-SMSA counties in Utah by the number of Medicare enrollees in these counties. In view of the fact that the rural figures are generally lower than the statewide figures for Utah which are, in turn, lower than the Mountain Region and the U. S., they highlight the scarcity of Medicare-certified SNF beds in rural Utah.

Turning next to the demand for Medicare skilled nursing care, both admissions and patient days per 1,000 Medicare enrollees exhibited a decrease in the seven mountain states and the entire U. S. between 1971 and 1975. After attaining a minimum in 1972, the Utah rates which include UCIP utilization exhibited a tendency to increase over this time period. 11

In rural Utah, Medicare skilled nursing admissions and patient days per 1,000 Medicare enrollees increased significantly after the inception of UCIP (Figure 2). As will be discussed later in this section, this increase in long-term care utilization by residents of rural Utah cannot be attributed to any decrease or change in acute care utilization patterns over this period. Thus, these figures demonstrate an overall increase in Medicare skilled nursing care utilization in rural Utah during the UCIP period.

An analysis of UCIP Medicare utilization by rural residents revealed a shift in Medicare utilization from urban SNFs to UCIP hospitals. As shown in Table 1, 64 percent of the rural residents receiving Medicare skilled nursing care in 1971 were admitted to urban SNFs. By 1975, less than 21 percent of the admissions of rural residents receiving Medicare skilled nursing care were to urban SNFs. Rural admissions to urban SNFs were reduced approximately 50 percent between the pre-project years and 1975. This decline in utilization of urban SNFs is also reflected in the reduction in Medicare skilled nursing days provided by urban SNFs, as shown in Table 1. Thus, by 1975 almost 70 percent of Medicare SNF admissions for rural residents were generated by UCIP hospitals.

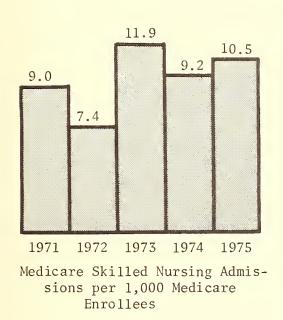
The above information provides some evidence to suggest the existence of an unmet need for skilled nursing care in rural Utah. First, Utah has fewer long-term care beds per capita than either surrounding states or the entire U. S. While it is possible that other areas may be overbedded, the use of both the Mountain Region and the entire country as

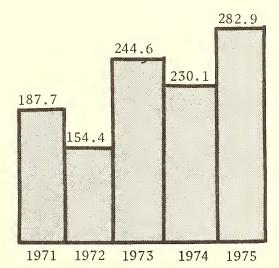
The 1971 and 1975 admission and patient day rates for the Mountain Region were 19.6 and 16.1 and 364 and 299, respectively; for the U. S., 19.7 and 18.9 and 376 and 369, respectively; and for Utah, 16.5 and 17.1 and 305 and 350, respectively. As discussed in Volume II, the decrease in the Mountain Region and U. S. rates was uneven (i.e., there was not a steady downward trend) over this period.

Some of this decrease is due to the decline in the number of Medicare certified skilled nursing beds in urban Utah during these years.

FIGURE 2:

Medicare Utilization of Skilled Nursing Care per 1,000 Medicare Enrollees in Rural Utah, 1971-19751





Medicare Skilled Nursing Care Patient Days per 1,000 Medicare Enrollees

Source: Medicare Part A claims forms for residents of rural Utah. These figures include rural residents who received care in urban areas.

¹Includes UCIP utilization for 1973-1975.

TABLE 1:

For Residents of Rural Utah: Medicare SNF Admissions and Patient Days by
Location of Facility--for Utah SNFs and UCIP Hospitals, 1971-1975

Admissions

	Urban SNFs		Rural SNFs		UCIP Hospitals 1		Total	
	Admis- sions	0,0	Admis- sions	%	Admis- sions	%	Admis- sions	%
1971	127	64.1	21	10.6	50	25.3	198	100.0
1972	112	66.7	22	13.1	34	20.2	168	100.0
1973	127	40.8	10	3.2	174	56.0	311	100.0
1974	57	23.1	22	8.9	168	68.0	247	100.0
1975	60	20.6	29	10.0	201	69.4	290	100.0

Patient Days

	Urban SNFs		Rural SNFs		UCIP Hospitals ¹		Total	
	Days	%	Days	%	Days	%	Days	%
1971	2,812	69.3	609	15.0	638	15.7	4,059	100.0
1972	2,573	73.1	491	13.9	457	13.0	3,521	100.0
1973	3,160	49.5	278	4.4	2,945	46.1	6,383	100.0
1974	1,657	26.7	698	11.2	3,857	62.1	6,212	100.0
1975	1,952	25.0	1,007	12.9	4,848	62.1	7,807	100.0

Includes admissions and patient days for all participating UCIP hospitals for the respective years, i.e., while other results presented later in this chapter pertain to the 15 non-LTC and the 8 LTC hospitals, the data in this table pertain to all UCIP hospitals participating in the experiment during the indicated years.

Source: Medicare Part A Claims

comparative norms suggests that Utah is underbedded. This is especially true for rural Utah. These lower utilization rates in Utah, and rural Utah in particular, relative to both surrounding states and the nation, also suggest the existence of an unmet need. Medicare long-term care utilization by residents of rural Utah increased during the UCIP period. This increased utilization was accompanied by a shift in Medicare demand from urban SNFs to UCIP hospitals located closer to the patients' homes, which further supports the possibility of an unmet need in rural Utah. The accompanying shift in demand to UCIP hospitals lends additional credibility to the UCIP hospital administrators' contention that UCIP provided a needed community service (discussed in the preceding section). Hence, the weight of available evidence suggests that an unmet need for long-term care existed in rural Utah prior to UCIP.13

2. To what extent were swing beds used to provide long-term care in rural Utah?

Table 2 presents the number of long-term care patient days for UCIP hospitals between 1972 and 1975. For the non-LTC hospitals in the experiment, swing-beds were used to provide from 4,143 to 6,368 days of long-term care per year. Since the non-LTC hospitals did not provide long-term care prior to the experiment, these days may definitely be regarded as days attributable to UCIP. 14

As discussed earlier, certain LTC hospitals continued to operate as distinct-part facilities, making the distinction between project patients and non-project patients unclear. As a result, UCIP days could not be separated from other long-term care days in the LTC hospital group. In fact, LTC hospitals with distinct parts received an incentive payment based on all recorded long-term care days. In order to approximate long-term care utilization attributable to UCIP, 1972 utilization levels were regarded as indicative of non-UCIP utilization for LTC hospitals during the UCIP period. Using 1972 as the base year in this manner, the increase in long-term care utilization for the LTC hospitals was less in terms of total days than the increase for the non-LTC hospitals. As shown in Table 2, the eight LTC hospitals provided 30,674 days of care in 1972. In 1973, three of the LTC hospitals were participating in UCIP, and total long-term care utilization increased to 31,772 days for the eight LTC hospitals. Despite the fact that the remaining five LTC

This finding must be qualified since (1) need and demand are not necessarily correlated, as discussed earlier; and (2) much of the evidence presented in support of the finding is based only on Medicare utilization.

No major changes occurred in the number of beds in UCIP hospitals between 1972 and 1975.

Comparison years 1974 and 1975 are used since only three of the eight LTC hospitals had joined the experiment in 1973.

TABLE 2:

Long-Term Care (LTC) Patient Days, LTC Occupancy Rates, and LTC Days as a Percent of Total Inpatient Days for UCIP Hospitals, 1972-1975

	1972	1973	1974	1975
Non-LTC Hospitals LTC Patient Days LTC Occupancy Rate LTC Days as % of Total Days Number of Hospitals ¹	- - - -	4,143 2.5 5.3 12	6,261 3.6 8.7 15	6,368 4.4 10.0 15
LTC Hospitals LTC Patient Days LTC Occupancy Rate LTC Days as % of Total Days Number of Hospitals ²	30,674 28.5 46.5	31,772 29.0 46.4 8	31,643 29.1 46.1	33,499 30.4 46.4 8

Three hospitals with no previous long-term care experience joined the project in 1974 bringing the number of such hospitals to 15. These three hospitals had no long-term care days in 1973.

Source: Medicare Cost Reports

hospitals joined UCIP in 1974, the number of long-term care days decreased to 31,643 in 1974. This figure increased in 1975 to 33,499 days. The difference between 1975 and 1972 days attributable to the LTC hospitals is 2,825 days. Adding this to the 6,368 UCIP days for the non-LTC hospitals in 1975 yields 9,193 or roughly 10,000 UCIP days in 1975.16

While five of the eight LTC hospitals did not join the project until 1974, long-term care days for all eight hospitals are included here for comparison purposes.

Adding the days attributable to UCIP for Beaver Valley and Fillmore LDS in 1975 (these were the two hospitals excluded earlier since they are statistical outliers from the perspective of most analyses) brings the 1975 UCIP total to 14,346.

Long-term care occupancy rates (using total acute plus long-term care bed days available as a base) and long-term care days as a percent of total inpatient days are also shown in Table 2. As expected, long-term care accounted for substantially more utilization in the LTC hospitals than in the non-LTC hospitals. Long-term care occupancy increased from 1972 throughout the UCIP period in both types of hospitals. An increase occurred for the non-LTC hospitals from no utilization in 1972 to a long-term care occupancy rate of 4.4 percent in 1975, with long-term care days accounting for 19 percent of total inpatient days in 1975. For LTC hospitals, the long-term care occupancy rate increased slightly and the percentage of inpatient days which were long-term care days was relatively constant. Thus, the project substantially increased the amount of long-term care provided by hospitals without distinct parts, but had less effect on the amount of long-term care provided in distinct-part hospitals.

3. Did the provision of long-term care in UCIP hospitals alter acute care utilization patterns? Did total hospital utilization increase with the swing-bed program?

Table 3 indicates that both non-LTC and LTC UCIP hospitals tended to have lower occupancy rates than non-long-term care rural hospitals in 13 other western states. ¹⁷ The lower acute care occupancy rates for UCIP hospitals persisted from 1972 through 1975. Although there was a slight decrease in acute care occupancy between 1972 and 1975 for the UCIP non-LTC hospitals and the comparison hospitals, and a slight increase for the UCIP LTC hospitals, no within-group occupancy changes between 1972 and 1975 were significant. ¹⁸ While some of the differences between UCIP and comparison hospitals are significant for various years, this only indicates a difference between rural Utah occupancy rates and occupancy rates associated with rural areas in other western states. It does not indicate that UCIP changed acute care utilization patterns in any way.

There was a general tendency for acute care admissions to increase between 1972 and 1975 for all three hospital groups. ¹⁹ For both the UCIP non-LTC hospitals and the comparison hospitals, this increase in admissions, in view of the decrease in occupancy demonstrated in Table 3, could be associated with either a decrease in length of stay or an increase in average bed size. As mentioned earlier, there were virtually no changes in number of beds for UCIP hospitals between 1972 and 1975. Similarly, for the comparison hospitals, the average bed size in 1972 was 43.7 beds and for 1975 it was 44.2 beds. Thus, for both hospital

The UCIP hospitals include all hospitals in rural Utah under 100 beds.

T-tests were used to test hypotheses in this section. None of the t-values were significant at the .05 level.

¹⁹Statistics on admissions and length of stay are presented in Volume II.

TABLE 3:

Acute Care and Total Occupancy in UCIP Hospitals and Comparison Hospitals in the Western United States, 1972-1975

	Acute Care Occupancy Rates ¹					
	1972	1973	1974	1975		
UCIP Non-LTC Hospitals (N = 15)	45.1%	44.9%	45.1%	43.5%		
Comparison Non- LTC Hospitals ² (N = 288)	55.6	55.1	53.4	52.9		
UCIP LTC Hospitals (N = 8)	41.4	41.1	41.7	44.2		

Acute care occupancy is computed using acute care patient days only. The tabulated figures are averages for the hospitals in each group.

Sources: Medicare Cost Reports and the American Hospital Association Guide to the Health Care Field.

groups the decrease in occupancy was largely associated with a decrease in length of stay. Conversely, the slight increase in acute care occupancy for UCIP LTC hospitals was accompanied by both an increase in acute care admissions and an increase in acute care length of stay between 1972 and

A total of 288 comparison hospitals were chosen from Idaho, Montana, North Dakota, South Dakota, Nevada, Wyoming, Colorado, Nebraska, Iowa, Arizona, New Mexico, Kansas, and Oklahoma. All were rural (non-SMSA), short-term, general hospitals with less than 100 beds, less than 80 percent occupancy, and no long-term care beds. (Although the UCIP hospitals included all rural Utah hospitals and had occupancy rates below 80 percent, this was not true of all rural hospitals in the comparison states.)

1975. As with changes in occupancy between 1972 and 1975, the changes over this period for both acute care admissions and acute care length of stay were not significant.

Table 4 contains total occupancy rate figures (based on both acute and long-term care patients) for four different hospital groupings: UCIP non-LTC hospitals, comparison non-LTC hospitals (also used in Table 3), UCIP LTC hospitals, and a fourth group of comparison LTC hospitals. Examining the UCIP non-LTC and the comparison non-LTC occupancy rates indicates that total occupancy increased for the UCIP hospitals and

TABLE 4:

Total Hospital Occupancy in UCIP Hospitals and Comparison Hospitals in the Western United States, 1972-1975

	Total Occupancy Rates 1				
	1972	1973	1974	1975	
UCIP Non-LTC Hospitals (N = 15)	45.1%	47.4%	48.7%	47.8%	
Comparison Non- LTC Hospitals ² (N = 288)	55.6	55.1	53.4	52.9	
UCIP LTC Hospitals (N = 8)	55.0	57.2	57.4	60.5	
Comparison LTC Hospitals ² (N = 28)	66.0	67.7	68.4	68.1	

Total occupancy is computed using both acute and long-term patient days. The tabulated figures are averages for each hospital group.

Source: Medicare Cost Reports and the American Hospital Association Guide to the Health Care Field.

See footnote 2 of Table 3 for an explanation of comparison hospitals. The 28 comparison LTC hospitals were chosen in the same manner from the same states but had long-term care beds for 1972-1975.

decreased for the comparison hospitals between 1972 and 1975. ²⁰ The increase in total occupancy for the UCIP non-LTC hospitals between 1972 and 1975, however, was not significant. Total occupancy rates increased for the UCIP LTC hospitals and the comparison LTC hospitals between 1972 and 1975, although the percentage increase for the UCIP LTC hospitals was greater. Again, neither increase was statistically significant. Combining the 15 LTC and 8 non-LTC UCIP hospitals, the (average) total occupancy increased from 48.5% to 52.2% between 1972 and 1975.

Thus, UCIP had no discernible effect on acute care utilization measured in terms of acute care occupancy, length of stay, and admissions. On the average, total hospital occupancy increased slightly for both non-LTC and LTC UCIP hospitals, but these increases were not statistically significant. However, for a few individual hospitals, such as Fillmore LDS, acute care utilization patterns changed substantially during the UCIP period. 21

4. How did utilization differ by Medicare, Medicaid, and privatepay patients?

The percentages of UCIP patient days paid by Medicare, Medicaid, and private-pay patients changed during the course of the project. Table 5 provides the relative percentages of long-term care days in UCIP hospitals attributable to Medicare, Medicaid, and private-pay patients.

At the start of the project, Medicare reimbursed for approximately 32 percent of the long-term care days provided by non-LTC hospitals and 6 percent of the long-term care days provided by the LTC hospitals. In the same year, Medicaid reimbursed for approximately 17 percent of the long-term care days in non-LTC hospitals and 57 percent of long-term care days in LTC hospitals. In addition, private-pay patients paid for over 50 percent of the long-term care in non-LTC hospitals and slightly less than 37 percent of long-term care in LTC hospitals. Data on the primary source of payment for U.S. nursing home residents for a similar time period, April, 1973 to August, 1974, were collected in the National

The statistics for the comparison non-LTC hospitals in Table 4 are the same as those given in Table 3 since the comparison hospitals did not provide long-term care over the time period under consideration.

Individual hospital data on acute care occupancy are presented in Table 11 of Volume II. As indicated, however, changes in acute care utilization for Fillmore LDS hospital cannot be directly attributed to UCIP.

At this writing, a similiar pattern is emerging in the Reducing Acute Care Costs (RACC) swing-bed experiments. In the western Iowa-South Dakota project, after one year of patient admissions (July, 1976 through June, 1977), 46 percent of long-term care days were private-pay.

TABLE 5:

Percentages of Long-Term Care Days in UCIP Hospitals Reimbursed by Medicare, Medicaid, and Private Pay, 1973-1975

		% Medicare	% Medicaid	% Private Pay ¹
1973	Non-LTC Hospitals	32.4	17.4	50.2
	LTC Hospitals	6.2	57.1	36.7
1974	Non-LTC Hospitals	34.2	22.7	43.1
	LTC Hospitals	6.5	61.4	32.1
1975	Non-LTC Hospitals	21.2	27.2	51.6
	LTC Hospitals	14.4	58.0	27.6

The "Private Pay" column pertains to private or out-of-pocket payors almost exclusively. As far as could be ascertained, there was virtually no participation by insurors other than Medicare and Medicaid.

Source: Medicare Cost Reports, Medicare Claims Forms, and Medicaid Long-Term Care Summary Reports

Nursing Home Survey.²³ These data indicate that private pay was the primary source of payment for 36.7 percent of all nursing home residents having a length of stay greater than one month. This is comparable to the proportion of UCIP private-pay patients in LTC hospitals but less than the proportion of private-pay patients in the non-LTC facilities.

Utilization patterns as measured by the relative portions of patient days covered by different payors differed not only at the start of the project for the two hospital groups, but also for changes over time. The 1975 proportion of long-term care Medicare patients in non-LTC hospitals was less than the 1973 proportion, while the reverse was true in the LTC hospitals. The percentage of Medicaid long-term care days increased steadily from 1973 to 1975 for the non-LTC hospitals and remained relatively stable for the LTC hospitals. The proportion of private pay UCIP patients dropped in 1974 but increased in 1975 for non-LTC hospitals, with the net result being that the 1975 proportion was approximately the same as the 1973 proportion. For LTC hospitals, however, the proportion of private pay patients decreased steadily from 1973 to 1975.

National Center for Health Statistics: Utilization of Nursing Homes, United States: National Nursing Home Survey, April 1973-April 1974.

Vital and Health Statistics, Series 13 No. 28. DHEW Publication No. (HRA) 77-1779. July, 1977. p. 20.

5. Did hospitals tend to deliver more skilled nursing care than intermediate or personal care to long-term patients? Are there indications that long-term care patients were inappropriately classified?

As shown in Table 6, almost 98 percent of UCIP Medicaid patients were classified at the skilled level. 24 There is some reason to believe that a portion of these patients should have been classified as either intermediate or personal care patients because their average length of stay was 270 days. This is greater than either the state-wide or the U. S. Medicaid SNF lengths of stay for 1973 through 1975, which were 232 and 186 days, respectively.

TABLE 6:

Medicaid Long-Term Care Utilization in UCIP Hospitals by Different Levels of Care, Aggregated Over the Period 1973-19751

	Skilled Patient number		Intermedi Patient number		Total D	ays %
Non-LTC Hospitals	3,800	98.6%	52	1.4%	3,852	100%
LTC Hospitals	54,745	97.7%	1,271	2.3%	56,016	100%
Total	58,545	97.8%	1,323	2.2%	59,868	100%

The figures presented here pertain to 23 UCIP hospitals. Although no personal care was provided by the 23 hospitals, one of the two hospitals previously mentioned as outliers did provide 205 personal care days of service (i.e., Utah Medicaid personal care).

Source: Medicaid Long-Term Care Monthly Summary Reports

Medicaid intermediate care length of stay in Utah was 259 days for 1974 and 1975 combined, while the Medicaid intermediate care length of stay for 1974 and 1975 for the entire U. S. was significantly less--230 days. 25 Thus, Utah Medicaid lengths of stay for each level of care are greater than the comparable U. S. figures. In addition, UCIP Medicaid lengths of stay are significantly greater than comparable figures for the rest of the state.

Since Medicare reimburses for skilled nursing care only, all Medicare patients were skilled. Information on private-pay patients was not available.

²⁵Data for 1973 intermediate care length of stay were not available.

The precise reason why Medicaid lengths of stay are greater in Utah is not known, but as indicated in Section E, it appears that the long-term care case mix in Utah differs from that for the rest of the country. However, no significant differences in long-term care case mix (for skilled level care) were found between UCIP hospitals and Utah SNFs.

D. FINANCIAL RESULTS

The fundamental purpose of the financial analysis was to determine the cost of providing long-term care in UCIP hospitals. While the financial evaluation had other objectives, as indicated by several of the following questions, the most critical was the determination of incremental and full costs associated with the provision of long-term care. 26 The assessment of true cost is pertinent not only to a determination of whether to implement the swing-bed program nationally, but also to the development of a reimbursement system should the swing-bed program be implemented. The actual cost figures obtained through the financial analysis are presented in this chapter while the general implications for structuring a reimbursement system are discussed in the following chapter.

In view of the importance of the reimbursement issue, a summary of the experimental procedure which determined how UCIP hospitals were reimbursed for long-term care is presented. First, hospitals billed patients directly for long-term care days not covered by Medicare or Medicaid. The rates used were the same as the per diem rates for long-term care established by Medicaid throughout Utah.²⁷ Private-pay patients also paid for ancillary services on a billed charges basis.²⁸ The Utah Medicaid program participated in UCIP by reimbursing hospitals for routine care at the appropriate Medicaid per diem rate for each Medicaid long-term care day. The Medicaid per diem rates for skilled nursing care increased at several points during the project from \$15.80 in 1973 to \$20.00 by the end of 1975. The intermediate and personal care rates increased from \$10.19 and \$8.27 in 1973 to \$15.00 and \$11.00, respectively, by the end of 1975. Medicaid paid for ancillary services on the basis of charges billed by the hospital.

For a definition of incremental and full costs, see footnote 10 of Chapter II.

The Medicaid program in Utah established statewide per diem rates for skilled, intermediate, and personal care during 1973-1975. The UCIP hospitals used this per diem rate structure in billing private pay patients. Further, as will be discussed, Medicare used the Medicaid SNF per diem rates in its reimbursement scheme.

Ancillary services pertain to those patient care services which are not normally considered part of the basic hospital care received by all patients. Ancillary services include items such as radiology, laboratory, operating room services, etc. Routine services include the provision of the patient's room and board as well as standard services typically administered in the patient's room.

The Medicare reimbursement scheme was premised on the argument that the per diem rates paid by Medicaid in Utah for long-term care exceeded the incremental cost of providing long-term care in an acute care hospital. If, in fact, the difference between long-term care revenue and incremental long-term care cost were applied to offset acute care cost, then the acute care cost would actually be reduced due to long-term care.

A formula was designed to approximate the acute care savings which would accrue due to the provision of long-term care. The Medicare reimbursement scheme stipulated that 50 percent of this acute care savings should be returned to the hospital as an incentive payment for participating in the swing-bed experiment. This Medicare incentive payment was based exclusively on the cost of providing routine care. Ancillary reimbursement was handled through standard Medicare reimbursement procedures for acute care.

The exact formula used by Medicare to reimburse for routine care in UCIP hospitals is given in Volume II; it basically involved three parts: (1) the above-mentioned per diem payment for Medicare skilled nursing patients; (2) reimbursement for the Medicare portion of routine care adjusting for per diem payments received for the provision of long-term care; and (3) the incentive payment mentioned above, which was 50 percent of the routine care savings realized by Medicare as a result of subtracting the per diem payment from total routine care costs.

In order to determine incremental costs, three different approaches to cost estimation were taken in the financial evaluation. The results presented in the following pages are based on one of the three approaches; namely, the cost finding method. Briefly, this approach entailed the determination of costs for each of several cost centers and then the allocation of the cost for each cost center between acute and long-term care. The approach lends itself most easily to a reimbursement scheme based on incremental cost. Further, it yielded consistent and reliable figures for both routine and ancillary costs. The other two approaches are more theoretical in nature and were not sufficiently refined as cost estimation techniques to base the ultimate implications of the financial evaluation on their application.²⁹

Two cost finding methods were used. The first, termed Method 1, was the method actually used during UCIP to calculate the incremental cost of long-term care for purposes of computing the Medicare incentive

The other two techniques are described further in Appendix D of Volume II. They were based on the "theory of pure incremental costing" which would stipulate that the true incremental cost is obtained by accurately predicting what cost would have been had long-term care not been provided, taking inflation, changes in utilization, etc., into consideration, then subtracting total observed cost from predicted cost obtained in this manner and attributing the residual to the provision of long-term care. These techniques are being further refined and applied in the ongoing evaluation of swing-bed experiments in Texas, Iowa, and South Dakota, where sufficiently detailed utilization, inflation, cost, and comparison data are available to apply the techniques.

payment discussed above. It involved the allocation of costs for six routine care cost centers between acute and long-term care. ³⁰ The second cost finding method was developed by the University of Colorado staff specifically for purposes of this evaluation and is termed Method 2. It involved the allocation of costs for four additional routine care cost centers and fourteen ancillary cost centers. ³¹ As explained in Volume II, Methods 1 and 2 very likely tend to underestimate and overestimate, respectively, the true incremental cost for routine care. That is, the true routine care incremental cost is likely to fall between the Method 1 and 2 estimates. For ancillary incremental costs, only Method 2 was used since ancillary incremental costs were not calculated as part of the experiment.

As a final introductory point to the financial findings, it should be noted that the first part of the UCIP experiment took place during the final stages of the Economic Stabilization Program (ESP). The post-ESP era began in April, 1974. Thus, the initial group of hospitals which joined the experiment in early 1973 participated for over a year under the ESP, while the group of UCIP hospitals which began participating in 1974 began shortly before ESP ended. The extent to which ESP contained increases in incremental costs during 1973 and 1974 could not be determined as part of this evaluation.

1. Given that there was a substantial unused hospital bed capacity to provide long-term care, i.e., that the participating hospitals were, on the average, less than 50 percent occupied, what was the "add on" or incremental cost of providing long-term care?

Table 7 summarizes the incremental cost results using both the UCIP incentive methodology (Method 1) and the extension of that method devised by the evaluation project staff (Method 2). Column one contains the routine incremental cost per long-term care patient day calculated using the UCIP methodology. For all hospitals together, mean values for Method 1 incremental costs in the three experimental years were \$4.95 per long-term care patient day in 1973, \$3.83 in 1974, and \$4.44 in 1975. Across the three experimental years, calculated incremental cost shows a decrease from 1973 to 1974 and then a rise from 1974 to 1975. An analysis of the Medicare Cost Report data for these years and discussions with Blue Cross of Utah staff indicated that the bases for calculation in 1973 were somewhat different than those used in succeeding

³⁰The six routine care cost centers consisted of labor costs for staff added to assist in providing long-term care and non-labor costs for dietary, laundry and linen, housekeeping, plant operation and maintenance, and depreciation for moveable equipment.

The Method 2 routine care cost centers included the above six plus non-labor costs for medical records, administration and general, central services and supply, and routine and pediatric nursing. The fourteen ancillary cost centers consisted of non-labor ancillary costs for pharmacy, laboratory, radiology, physical therapy, EKG/EEG, occupational therapy, speech therapy, social service, laundry and linen, plant operation and maintenance, housekeeping, administration and general, medical records, and central services and supplies.

years in that some non-salary fixed costs were included in the dietary area and that the percentage of hospital square footage devoted to routine care was overstated. This resulted in an overestimate of incremental cost in 1973 which was corrected in 1974, reducing the mean values as indicated in the table.

The second column gives the total routine incremental cost per long-term care patient day using Method 2. Column three contains the ancillary incremental cost per long-term care patient day calculated using Method 2.

Table 7:

Average Incremental Cost Per Long-Term Care Patient Day by Hospital Type

and Year ¹		Method 1	Method 2	Method 2	
Year	Hospital Type	Routine 1ncremen- tal Cost	Routine Incremen- tal Cost	Ancillary Incremen- tal Cost	
1973	Non-LTC	\$5.03	\$7.15	\$1.63	
	LTC ²	4.64	7.14	3.61	
1974	Non-LTC	3.96	6.57	1.68	
	LTC	3.65	6.08	1.47	
1975	Non-LTC	4.60	7.44	2.18	
	LTC	4.21	7.39	1.68	

The number of hospitals used to derive the results in this section varies due to inadequate data for some hospitals. Exact figures are given in Volume 1I.

Source: Medicare Cost Reports and UCIP Incentive Calculation Worksheets.

As would be expected due to inflation, additional costs (obtained by subtracting column one from column two) calculated using Method 2 demonstrate a gradual rise from 1973 to 1975. Although not shown in Table 7, the largest component of additional cost was attributable to administration and general expenses. The Method 2 routine cost showed a

Only three LTC hospitals participated in the experiment in 1973.

decrease from 1973 to 1974 due to the overestimate of incremental costs in 1973 discussed above. In any case, the (mean) total routine incremental cost of long-term care never exceeded \$9.00 per patient day in any year of the study. For each study year, the UCIP (Method 1) incremental cost constituted the largest portion of the Method 2 routine incremental cost for both types of hospitals.

Average ancillary incremental costs for all hospitals combined were \$1.97, \$1.61, and \$2.01 for 1973, 1974, and 1975, respectively. In comparing these values across LTC and non-LTC hospitals, it is important to recall that ancillary cost is largely a function of the number of ancillary services available and the customary medical practices at the hospital. Average incremental cost (using Method 2 for both routine and ancillary costs) was approximately \$9.25 in 1975 for hospitals which had complete ancillary and routine care cost data.

The variation across UCIP hospitals with respect to incremental cost per long-term care day was relatively small. ³² Since most patients who received long-term care in UCIP hospitals were classified as skilled level patients, it was not possible to ascertain the extent to which differences in levels of care were associated with variations in the incremental cost figures.

2. If costs were not regarded as incremental, what would be the full cost of providing long-term care in acute care hospitals in rural areas?

The average full costs of long-term care in UCIP hospitals from 1973 to 1975 are provided in Table 8. A comparison of the figures in Tables 7 and 8 indicates that the full cost per long-term care day is substantially higher than the analogous incremental cost. Full cost per day was computed by allocating routine cost to long-term care on the basis of nursing time spent with acute and long-term care patients and then allocating ancillary costs to long-term care on the basis of the ratio of ancillary charges for long-term care to total charges for ancillary services. For those hospitals which maintained certified distinct parts throughout UCIP, the full cost of long-term care could be obtained directly from figures reported on the Medicare Cost Reports. distinct parts are operated in a manner similar to nursing homes, it is not necessary to maintain the capacity to provide acute care-acute care is provided through the hospital facility. Consequently, long-term care patients are not required to share in the payment for services and equipment which exist largely for acute care patients, resulting in lower full costs for long-term care in those UCIP hospitals which maintained distinct parts during UCIP.33

³²In 1975, for example, the standard deviation for the Method 2 routine care cost was \$1.94 for the non-LTC hospitals.

Volume II reports separate costs for such facilities, termed LTC-D hospitals, and for those UCIP LTC facilities, termed LTC-C hospitals, which did not maintain distinct parts during the experiment. The LTC-D costs were uniformly lower than the LTC-C costs.

TABLE 8:

Average Full Cost per Long-Term Care Patient Day by Hospital Type and Year¹

<u>Year</u>	Hospital	Routine	Ancillary	Total
	Type	Full Cost	Full Cost	Full Cost
1973	Non-LTC	\$34.67	\$3.63	\$38.32
	LTC	26.20	2.79	29.52
1974	Non-LTC	38.49	4.47	43.04
	LTC	29.41	3.31	33.06
1975	Non-LTC	47.73	5.89	53.62
	LTC	31.67	5.30	36.98

The number of hospitals used to derive the results in this section varies due to inadequate data for some hospitals. Exact figures are given in Volume II.

Source: Medicare Cost Reports

The difference in the average full cost between LTC hospitals and non-LTC hospitals was greater than the difference between incremental cost for the two groups. This is due largely to those LTC hospitals which maintained distinct parts as mentioned above. For both groups combined, the average full cost is approximately four to five times as large as the average incremental cost.

While there was more variation in full cost per long-term care day than was the case with incremental cost, the increase in variation was proportionate to the increase in the magnitude of full cost over incremental cost. 34

While the full cost of UCIP care was substantially greater than the incremental cost of such care, the full cost calculations naturally resulted in the reduction of acute care costs, since a greater percentage of the total hospital cost was allocated to long-term care. The differences in acute care costs obtained by calculating long-term care costs on an incremental and then on a full cost basis are presented in response to Question 4 in this section. Finally, unlike incremental cost per long-term care day for which routine cost accounts for 70 to 80 percent of total cost, the routine portion of full cost per long-term care day accounts for approximately 90 percent of the per day cost.

³⁴

The standard deviations for full cost ranged between one quarter and one fifth of the mean full cost values.

3. How do the incremental and full costs of providing long-term care (by means of the swing-bed method) compare with the cost per long-term care patient day currently paid by Medicare for skilled nursing care?

Ancillary costs associated with patients who receive care in skilled nursing facilities are difficult to estimate since many skilled nursing care patients receive ancillary care outside the facility. For example, ancillary care may be provided by individuals and/or organizations (not directly affiliated with the skilled nursing facility) through special or contractural arrangements. As a result, various types of costs which should be regarded as ancillary expenditures do not appear on the skilled nursing facility Medicare Cost Reports. Due to this problem of obtaining accurate ancillary cost data for skilled nursing facilities, Table 9 provides a comparison of the routine cost of long-term care in UCIP hospitals with a sample of Utah skilled nursing facilities.

TABLE 9:

Facilities

Average Incremental and Full Costs per Day for Routine Care in UCIP
Hospitals Compared With Cost per Day for Freestanding Skilled Nursing
Facilities, 1973-1975

	1973	1974	1975
UCIP Incremental ²	\$7.15	\$6.47	\$7.43
UCIP Ful1 ³	34.21	38.52	47.12
Freestanding Skilled	18.60	20.30	23.50

The number of facilities used in computing each figure is given in Volume II.

Routine Cost per Long-Term Patient Day

Source: Medicare Cost Reports

Incremental costs are the Method 2 costs for non-LTC hospitals and those LTC hospitals which did not maintain distinct parts during UCIP.

³Includes non-LTC hospitals and those LTC hospitals which did not maintain distinct parts during UCIP.

The routine cost figures for UCIP hospitals (i.e., the first two rows) in Table 9 are averages based on non-LTC hospitals and non-distinct-part LTC hospitals combined, since these facilities constitute the most appropriate group to compare with freestanding SNFs. While the incremental routine cost per long-term care day in UCIP hospitals was substantially less than the routine cost per day in other Utah skilled nursing facilities, the full cost for routine care in UCIP hospitals was substantially higher than the routine cost per day in the comparison group. As discussed below, however, the acute care cost per day is less if the full cost approach is used to determine the unit cost of long-term care in UCIP hospitals.

4. Rural hospitals are often underoccupied and in financial difficulty. Does the swing-bed alternative increase the financial stability of such hospitals?

Several financial ratios for UCIP hospitals were calculated and analyzed for the period from 1971 to 1975. The ratio analysis was based on liquidity, activity (turnover), composition, and profitability ratios—all reasonably standard ratios which reflect the financial position of hospitals. The aggregate impression from the financial ratio analysis indicates that the position of most project hospitals did not improve substantially over the study years. This finding is expected in view of the utilization patterns discussed earlier which showed that the experiment did not generate large increases in hospital utilization and in view of the fact that routine care reimbursement was on an incremental cost basis. Also, it must be noted that the UCIP hospitals were subject to various national and regional economic influences during these years. In addition to ESP, the recession of 1974 and the overall problem of inflation possibly countered any positive effect that UCIP had on the financial condition of rural Utah hospitals.

Table 10 gives the percentage of revenues and costs due to UCIP for the non-LTC hospital group. As indicated, it was not possible to definitively separate UCIP days from other long-term care days for the LTC group. Hence, it was not possible to determine the percentage of overall revenue attributable to UCIP. The cost and revenue percentages in Table 10 further substantiate the finding that the experimental program contributed little to changing or improving the financial status of the UCIP hospitals. A comparison of the figures in Table 10 to the percentages of Table 2 points up the lower cost and revenue associated with long-term care relative to acute care. That is, while long-term care occupancy was 4.4 percent and long-term care days accounted for 10 percent of total patient days in UCIP hospitals in 1975, the corresponding revenue and cost figures (even using full cost) are lower.

5. How are acute care costs influenced by the provision of long-term care?

Since reduction of cost per patient day was one of the goals of the UCIP experiment, it is appropriate to examine the cost per acute care patient day in UCIP hospitals. The cost per acute care patient day figures in

TABLE 10:

The Percentage of Hospital Reven	ues and Cost	Due to UCIP	: For Non-LTC
Hospitals, 1973-1975			
	1973	<u>1974</u>	1975
Percent Revenue Due to UCIP ¹	2.04	3.07	3.91
Percent Cost Due to UCIP, Using Incremental Cost of Long-Term Care ²	0.68	0.91	1.20
Percent Cost Due to UCIP, Using Full Cost of Long- Term Care ³	3.48	4.39	7.02

Numerator revenues include UCIP per diem payments and incremental payments. Denominator revenues include all patient care revenues.

Source: Medicare Cost Reports

the first column of Table 11 approximate what non-LTC UCIP hospital costs would have been had the experiment not taken place, i.e., they are based on the incremental cost of long-term care (calculated using Method 2). Although not shown in the table, for Method 2 routine and ancillary incremental costs combined, the median ratio of cost per long-term care day over cost per acute day was .0981 (the 75th percentile was .1163) for non-LTC hospitals in 1975. The corresponding Method 2 ratios for routine costs (i.e., not including ancillary) were .1107 and .1137 (median and 75th percentile, respectively). The Method 1 figures for routine care were .0724 and .0803, respectively.

The second column of Table 11 indicates that the cost per acute care patient day, calculated under the assumption that long-term care costs should be regarded as full costs, would be approximately \$4.46 to \$11.20 per day less than the corresponding figure based on the incremental cost of long-term care. Thus, the figures in Table 11 highlight the shift in costs from acute to long-term care which would take place if a full cost method of accounting were used to determine the cost of providing long-term care in swing beds. The median and 75th percentile ratios of

Method 2 was used to calculate incremental costs in order to include both routine and ancillary costs.

³Full cost figures include both routine and ancillary full costs.

routine full cost per long-term care day over routine cost per acute care day were .8225 and .8258 for non-LTC hospitals in 1975. The corresponding figures for routine and ancillary full cost were .520 and .570, respectively.

TABLE 11:

Cost Per Acute Care Patient Day Calculated Using Incremental and Full Cost by Year, For Non-LTC Hospitals

		Cost Per Acute Care Patient Day				
<u>Year</u>	Hospital Type	Using Incremental Cost (Method 2) per Long- Term Care Patient Day	Using Full Cost per Long-Term Care Patient Day			
1973	Non-LTC Mean	\$81.32	\$76.86			
1974	Non-LTC Mean	96.59	90.23			
1975	Non-LTC Mean	110.98	99.78			

Source: Medicare Cost Reports

E. HOSPITAL CAPACITY TO PROVIDE LONG-TERM CARE

A key experimental treatment of the Utah project allowed the participating hospitals to provide long-term care without being required to meet the Medicare skilled nursing facility conditions of participation. As mentioned previously, the acute and skilled nursing care requirements overlap such that acute care facilities automatically comply with a portion of the skilled nursing requirements. Of the following eight requirements specifically related to patient care in skilled nursing facilities, basic acute care standards include only the first three: 35

The eight patient care requirements are defined in Appendix A of Volume II.

- 1. dietetic services,
- 2. pharmacy,
- 3. diagnostic services,
- 4. rehabilitative nursing,
- 5. rehabilitation services,
- 6. dental services,
- 7. patient activities space, and
- 8. social services.

The assessment of institutional capacity used the above Medicare skilled nursing care conditions of participation as baseline standards, comparing the extent to which the UCIP hospitals and ten Utah skilled nursing facilities satisfied these regulations. Data were obtained from Medicare/ Medicaid certification survey forms and verified on a sampling basis through communications with administrators. Several factors are important to mention inasmuch as they influence the interpretation of the findings presented below. First, experimental hospitals were never asked to comply with the skilled nursing care regulations. It is possible that more UCIP hospitals would have met the standards if they had been required to comply. Second, Medicare does not stipulate that the required services be facility-based. In other words, skilled nursing facilities are allowed to provide a number of the specialized services through contractual arrangements. Finally, skilled nursing facilities may be certified on the basis of "substantial compliance," i.e., they must comply with most conditions of participation to be certified, with the understanding that compliance problems regarding specific regulations will be rectified within a reasonable period of time. The result is that certain standards may not be satisfied at the time of the certification survey and, although noncompliance should be rectified, it may not be--and the facility still retains certification.

1. If the UCIP hospitals had been regulated in accord with Medicare long-term care standards, which regulatory standards would have been satisfied and with what frequency? In this regard, did UCIP hospitals which had long-term care experience differ from those which did not have such experience prior to the experiment?

As indicated in Table 12, in 1974 Utah skilled nursing facilities satisfied the eight conditions of participation to a greater extent than the experimental hospitals. Furthermore, the ten LTC hospitals complied with the conditions with greater frequency than the 15 non-LTC hospitals.

Of the five areas of specialized services required by Medicare (services four through eight in Table 12), the UCIP hospitals generally showed less compliance than the comparison facilities. While all of the Utah skilled nursing facilities provided activities space and social services, only 37 percent and 28 percent of the UCIP hospitals satisfied the activities space and social service standards, respectively; the majority of the LTC hospitals satisfied these two regulations. The UCIP hospitals satisfied the three other standards to a lesser extent than the ten comparison skilled nursing facilities.

TABLE 12:

A Comparison of Regulatory Compliance Rates of UCIP Hospitals and Utah Skilled Nursing Facilities in 1974

	Pe	rcentage of	Institution	s Complying ¹
Medicare Skilled Nursing Facility Regulations ²	25 UCIP Hospitals	15 non-LTC Hospitals	10 LTC Hospitals	10 Utah Skilled Nursing Facilities ³
1. Dietetic Services	100	100	100	100
2. Pharmacy	100	100	100	100
3. Diagnostic Servic	es 100	100	100	100
4. Rehabilitative				
Nursing ¹	75	43	100	90
5. Rehabilitation				
Services ¹	52	53	50	89
6. Dental Services 1	52	40	70	89
7. Patient Activitie			-	
Space 1	37	13	78	100
8. Social Services	28	7	60	100
		•		200
Average Percent				
Satisfied	67	57	82	94

Information on compliance was not available for each regulation for every hospital. Data were available for seven non-LTC and nine LTC hospitals for rehabilitative nursing; on nine Utah SNFs for rehabiliation services, dental services, patient activities space, and social services; and on nine LTC hospitals for patient activities space. Data were complete in all other instances.

Sources: For UCIP hospitals, Medicare/Medicaid certification forms for regulations applicable to both acute care hospitals and SNFs, and administrator interviews for the remaining SNF regulations. For Utah SNFs, Medicare/Medicaid certification forms.

²See Appendix A of Volume II for definitions of services.

The last column pertains to ten non-UCIP facilities certified by Medicare or Medicaid to provide skilled nursing care in Utah.

In keeping with the acute care orientation of the UCIP facilities, more hospitals provided rehabilitation services, which are related to both acute and long-term care, than services which tend to be associated exclusively with long-term care such as patient activities space. For this reason, the UCIP hospitals showed a greater compliance with rehabilitative nursing, rehabilitation services, and dental services. Nonetheless, the lower UCIP compliance rates for rehabilitative nursing and rehabilitation services brings into question the quality of long-term care provided in those institutions which do not comply with these two standards-which are generally recognized as critical for certain types of long-term care patients. 36 Overall, a higher percentage of the conditions of participation were satisfied by the ten comparison facilities (94%) than by the UCIP hospitals (67%).

Although the services required by the skilled nursing facility conditions of participation form the basis for the above comparisons, the availability of other (non-required) services warrants discussion. While all UCIP and Utah skilled nursing facilities demonstrated compliance with the diagnostic service requirement, only UCIP hospitals provided laboratory and/or radiology (diagnotic) space. As discussed, Medicare allows a skilled nursing facility to comply with certain regulations (e.g., diagnostic services) by providing the service either on site or through contractual arrangements. All UCIP hospitals directly employed both pathologists and radiologists on site, either in a parttime or consulting capacity. In contrast, all laboratory and radiological services were provided on an outside contractual basis for each of the ten comparison facilities. Thus, the greater accessibility of diagnostic services in hospitals may enhance the quality of care, especially in emergency situations (it also increases the potential to provide medical services which may not be necessary, however).

The assessment of institutional capacity did not include a comprehensive validation of the compliance rates of the comparison facilities. It is possible that Utah skilled nursing facilities satisfied the conditions of participation on the survey report, but varied as to their actual provision of the required services. A number of reports and studies have confirmed wide variations across the country for both the compliance rates among skilled nursing facilities and the information shown on the survey reports. Such may be the case in Utah.

2. Did UCIP hospitals provide care to different types of longterm care patients in comparison with Medicare-certified skilled nursing facilities in Utah?

Samples of UCIP patients and skilled nursing patients from the ten Medicare-certified facilities in Utah were compared. Using 15 diagnostic categories for purposes of patient classification, no substantial differences in long-term care case mix were found between the two samples (Table 13). Since primary medical diagnoses were used, these comparisons should be qualified in view of the fact that long-term care patients have secondary and higher order diagnoses which further determine (and

The quality of care study included in the evaluation of the Texas,
Iowa, and South Dakota experiments is designed to examine this issue.

TABLE 13:

Case Mix Profiles by Primary Admitting Diagnoses: A Comparison Among UCIP, Utah SNF, and U. S. SNF Patients

D	iagnostic Category	Pat	JCIP cients nber %	Pati	SNF ents er %	U.S. Patien number	tsl
1.	Heart Disease	70	16.3	84	13.9	41,900	18.0
2.	Chronic Brain Disease	20	4.7	16	2.7	35,500	15.2
3.	Stroke	54	12.6	101	16.7	26,400	11.3
4.	Fracture	94	21.9	157	26.0	23,100	9.9
5.	Neurological Disease	11	2.6	11	1.8	9,500	4.1
6.	Generalized						
	Arteriosclerosis						
	and Hypertension	25	5.8	25	4.1	16,000	6.9
7.	Neuroses and Psychoses	5	1.2	1	0.2	9,500	4.1
8.	Diabetes	24	5.6	28	4.6	12,600	5.4
9.	Diseases of Musculo-						
	Skeletal System	25	5.8	20	3.3	11,300	4.9
10.	Mental Retardation	0	0.0	0	0.0	400	. 2
11.	Neoplasm	26	6.0	47	7.8	6,600	2.8
12.	Diseases of						
	Respiratory System	23	5.3	30	5.0	5,700	2.4
13.	Diseases of					•	
	Digestive System	19	4.4	47	7.8	6,000	2.6
14.	Diseases of Genito-						
	Urinary System	20	4.7	17	2.8	3,200	1.3
15.	Diseases of Eye and Ear	1	0.2	2	0.3	2,700	1.2
16.	Other	13	3.0	17	2.8	22,700	9.7
	TOTAL	430	100.0	603	100.0	232,900	100.0

Numbers are inflated on the basis of sample data to represent the 232,900 SNF patients 65 years old and over in the U.S. in 1974.

Sources: Medicare and Medicaid claims forms for Medicare and Medicaid patients covered by the Utah experiment, 1973-75, and medical records for UCIP patients in the Nursing Observation Study; Medicare claims forms from the Utah SNFs, 1971-74; Long-Term Care Facility Improvement Study medical records data on a sample of approximately 3300 skilled nursing patients 65 years old and over in 288 Medicare and Medicaid facilities in 1974.

are related to) functional capabilities, as well as psychosocial and emotional needs. However, on the basis of primary medical diagnoses alone, there is no evidence to suggest that UCIP patients were different from other skilled nursing facility patients admitted to Medicarecertified nursing homes in Utah.

3. How did nursing time spent per long-term care patient in UCIP hospitals compare with time spent in nursing homes?

On the average, nurses spent more time per long-term care day in UCIP hospitals than in either the ten comparison skilled nursing facilities in Utah or United States nursing homes in general. Based on a nursing time observation study in six UCIP hospitals, it was found that nurses spent an average of 180.7 minutes per day with long-term patients in UCIP hospitals (Table 14). This is approximately 30 minutes per day longer than the analogous figures for both the ten Utah comparison facilities and other non-Medicare-certified facilities throughout the country. It is approximately the same, however, as the 177.8 minutes per day spent in certified skilled nursing facilities throughout the U.S.

TABLE 14:

A Comparison of Nursing Time Spent per Long-Term Care Patient in UCIP Hospitals, Other Utah Skilled Nursing Facilities, and U. S. Nursing Homes

	Minutes Per	Long-Term (Care Patie	nt Day
	All Nurses	RNs	LPNs	Aides
Six UCIP Hospitals ¹	180.7	26.0	30.2	127.1
Ten Utah Skilled Nursing Facilities	149.4	15.2	21.2	112.5
U.S. Nursing Homes	150.4	17.1	22.2	111.2
U.S. Skilled Nursing Facilities	177.8	n.a. ²	n.a. ²	n.a. ²

The last three columns do not sum to the 180.7 for the six UCIP hospitals because of the method used to allocate indirect nursing time. More information is available in Volume II.

Sources: Nursing Observation Study for 6 UCIP hospitals; Medicare certification forms for 10 Utah SNFs; 1973-74 NCHS Nursing Home Survey for 4,200 U. S. Medicare/Medicaid SNFs and 15,700 other nursing homes.

Data not available.

Table 14 also indicates that there was not only more registered nurse (RN) and licensed practical nurse (LPN) time spent per long-term care day in the UCIP hospitals, but also that the relative percentages of RN time and LPN time in UCIP hospitals were greater than the corresponding percentages in the ten Utah comparison facilities and U. S. nursing homes in general.³⁷ Data were not available by type of nurse for U. S. SNFs. Related to the time spent per patient day is the availability of the nursing staff. As might be expected for acute care hospitals, and in light of the lower number of RNs in nursing homes, the RNs per bed ratio is substantially higher in UCIP facilities than in all other types of nursing homes, including Medicare-certified skilled nursing facilities.

Of the total nursing time spent per long-term care day in UCIP hospitals, 14% was RN time and 17% was LPN time. These two percentages are higher than the corresponding percentages for both the 10 Utah comparison facilities and the U.S. nursing homes.

CHAPTER IV

IMPLICATIONS

A. PROGRAMMATIC IMPLICATIONS

If serious consideration is given to the possibility of extending the swing-bed alternative to rural hospitals throughout the country, the primary implications which may be drawn from the Utah experiment are as follows:

- (1) A national swing-bed program would very likely result in a shift of rural long-term care patients from metropolitan area nursing homes to rural hospitals. The increased access resulting from the UCIP experiment resulted in a reduction of rural Medicare skilled nursing admissions to urban facilities.
- (2) If a national swing-bed program is implemented in rural communities, utilization of Medicare-reimbursed skilled nursing care can be expected to increase. In <u>rural</u> Utah, Medicare skilled nursing care admissions and patient days per 1,000 elderly increased by about 25 percent after the project was implemented. Although data on admissions and patient days per 1,000 Medicaid recipients were not available, the findings suggest that an analogous implication holds for Medicaid skilled nursing care.
- (3) While nearly all UCIP Medicaid patients were skilled nursing patients, average UCIP length of stay was unusually long for Medicaid patients, possibly implying that some should have been classified as intermediate patients. Thus, long-term care utilization by Medicaid intermediate patients would be expected to increase in rural areas. Similarly, long-term care utilization by private-pay patients would increase in rural areas.
- (4) Total occupancy rates for rural hospitals can be expected to increase with the implementation of a swing-bed program. Yet, acute care utilization of participating hospitals is not likely to be significantly affected by national implementation of such a program. Certain factors, unique to the nature of UCIP as a demonstration project, such as constraints on the purchase of equipment, the minimization of staff increases, and initial pressures to participate, may have depressed utilization in Utah. Hence, more substantial increases in total occupancy of participating hospitals may result from a nationwide program.
- (5) It is likely that the total cost of health care in this country would increase with widespread implementation of the swing-bed method since utilization would increase due to the increased availability of

long-term care services in rural communities. Nonetheless, based on UCIP findings, total long-term care patient days would not increase substantially if a swing-bed program were implemented in rural areas. UCIP days represented less than two percent of the total number of long-term days for Utah in 1975. Thus, long-term care costs would not be expected to increase drastically.

- (6) From a short-run perspective the swing-bed approach appears to be the least expensive institutional alternative currently available for the provision of long-term care in rural communities. In Utah, the experiment resulted in a unit cost savings to Medicare for both acute and long-term care.
- (7) The financial position of rural hospitals would not be expected to change substantially if a swing-bed program were implemented nationally. However, one UCIP hospital was able to remain open due largely to long-term care revenues. Unless utilization is substantial (e.g., an increase of 10 percent in occupancy), the other major problems often encountered by rural hospitals, such as inflation, a declining population base, and difficulty in recruiting qualified staff members, can offset financial benefits obtained through participation in a swing-bed program.²
- (8) In the area of routine care, a decision must be made on whether to continue reimbursement on an incremental cost basis or shift to the more prevalent full-cost basis. While the merits of low incremental cost cannot be denied, the nature of reimbursement should be considered with a 10 to 20 year time horizon. Over such a time period, the acute care hospital with swing beds available for long-term care may evolve to the point where long-term care is no longer incidental to the provision of acute care. At such a point, the full cost of long-term care would appear to be the most appropriate basis for reimbursement. Thus, the notion of reimbursing exclusively on incremental cost over a period of time may ultimately evolve to reimbursement for full cost.
- (9) A compromise between full and incremental cost reimbursement could entail the establishment of a utilization "threshold," below which reimbursement would be on the basis of incremental cost and above which full cost could be reimbursed. For example, if long-term care patient days for a facility were to exceed 1,500 days per year, then full cost reimbursement might be appropriate. The establishment of such a threshold addresses the issue of the convergence of incremental and full cost for those hospitals which provide a substantial amount of long-term care over an extended period of time.

It would be desirable to forecast the approximate cost increase that would result from widespread implementation. Such projections are currently built into the evaluation design for the swing-bed experiments in Texas, Iowa, and South Dakota.

²This is not intended to imply that increased utilization is necessarily desirable, rather that it would assist swing-bed hospitals from a financial perspective.

- (10) It would be possible to reimburse for long-term care using a procedure similar to the current Medicare policy which allows reimbursement for long-term care at acute care rates when no qualified long-term care beds are available. From a reimbursement perspective, this entails treating long-term care days as acute care days. If Medicare were the only payor (or the dominant payor) for long-term care, the equal treatment of long-term care days and acute care days (which this study has shown to be more costly than long-term care days) would essentially mean Medicare would reimburse for more than its true share of routine costs. This would clearly be the case with the dominant long-term care payor, whether Medicare or some other carrier. As a result, the issue of all carriers simply covering their share of total costs does not circumvent the need to determine the difference between acute and long-term costs.
- (11) Another alternative to structuring a reimbursement system could entail setting a long-term care incremental reimbursement rate at a uniform percentage of the acute care reimbursement rate. Such a percentage can be obtained from the results of this study. If the decision were made to reimburse on the basis of full cost rather than incremental cost, an analogous percentage for full cost could be computed. As mentioned, however, these methods should be refined further to finalize such percentages. Should some form of incremental cost reimbursement be continued, it would be necessary to establish guidelines under which additional costs for depreciation and labor associated with the provision of long-term care would be covered.
- (12) Long-term care reimbursement for ancillary services could continue on the basis of the standard billed charges-final cost settlement followed by Medicare. This basically entails paying the full cost of ancillary care. However, if incremental cost reimbursement were implemented for routine care, then incremental reimbursement for ancillary care should also be considered. The results of this study indicate that incremental ancillary costs can be determined and that they are less than full costs as currently computed. The cost finding procedures used to obtain ancillary costs as part of this evaluation should also be further refined for reimbursement purposes.

³Health Care Financing Administration, Part A Intermediary Manual, Part 3--Claims Process (HIM 13-3), Section 3421.2 (A), reprinted September, 1977.

Reimbursement would be based on the following approach. Let p denote the ratio of long-term care cost per day to acute care cost per day as found in this study. This value (p) could be the median ratio, the 75th percentile ratio, etc. Then total "acute care equivalent days" for one year would be the sum of acute care days plus p times long-term care days. Cost per acute care equivalent day would be given by total inpatient cost divided by acute care equivalent days. Each acute day should then be reimbursed at this rate and each long-term care day should be reimbursed at p times this rate. This procedure could be followed for routine and ancillary costs separately. It could be further refined so that different percentages would pertain to different hospitals.

- (13) Administrator interviews suggest that the incentive payment was not a major motivation for participating in the experiment. This suggests that an incentive payment may not be necessary for national implementation. Instead, the incentive should be viewed only as a short-term device to encourage participation of hospitals in a new program.
- (14) The concept of a distinct-part skilled nursing facility affiliated with a rural hospital should be critically examined. The results of this study suggest that it may be appropriate to eliminate hospital-based distinct-part skilled nursing facilities in rural areas.
- (15) If it is determined that rural hospitals with pre-existing distinct-part skilled nursing facilities should be allowed to participate in a nationwide program while maintaining the distinct part, certain steps should be taken. First, swing beds should be used only when distinct-part skilled nursing facility beds are fully occupied. This takes full advantage of the skilled nursing facility which was constructed specifically for providing skilled nursing care. Second, Medicare and Medicaid should continue to pay on the basis of the traditional approach to reimbursing distinct-part skilled nursing facilities. Third, the reimbursement consideration discussed in implications (8) through (13) above should pertain only to long-term care provided in acute care swing beds.
- (16) More widespread use of a swing-bed program in rural areas may require that an upper limit be placed on the proportion of hospital beds which can be used as swing beds. One approach to the establishment of a ceiling would entail prohibiting the admission of long-term care patients if the total hospital occupancy exceeds a preset figure, such as 85 percent.
- (17) It is recommended that two separate files be maintained for swing-bed patients in the hospital: an acute care file (if necessary) and a long-term care file. This will facilitate patient management and reimbursement activities from the viewpoint of both medical care and administration by serving to minimize the confusion regarding the transfer of patients from acute to long-term care.
- (18) In order to resolve problems associated with patient misclassification and inappropriate patient/family expectations, and to serve as a focus of responsibility for patient referral and discharge, a nurse coordinator should monitor long-term care utilization. Utilization review could be linked with PSRO activities. A nurse functioning in this capacity could assume supervisory responsibility for discharge planning. Under the charge of the nurse coordinator, a systematic program should be implemented not only to acquaint patients and their families with differences between acute and long-term care, but also to explain that long-term care is not as medically intense as acute care, therefore resulting in lower rates for long-term care patients.

- (19) For patients whose medical condition and functional capabilities do not prohibit transfer, it may be advisable to move patients to a different room and, when possible, to a separate area of the hospital to ensure the distinction between acute and long-term care. For patients whose medical condition or functional capabilities indicate that a transfer may be detrimental, patient and family education on the differences between acute and long-term care is especially important. Such a program should solve a problem encountered in Utah--namely, the expectation that care would continue at the acute care level after transfer to long-term care.
- (20) UCIP hospitals complied with physical activities space and social services regulations significantly less often than other Utah SNFs. Since skilled nursing patients may be ambulatory, but institutionalized for an extended period of time, a patient activities space for long-term care patients should be regarded as a minimal requirement to satisfy the interpersonal and emotional needs of long-term care patients. Second, discharge planning for skilled nursing care patients can be drastically different from discharge planning for acute care patients. A social worker should be available on a consulting or contractual basis to assist in discharge planning for long-term care patients.
- (21) To further highlight the difference between acute care and long-term care and thereby possibly resolve certain patient-related problems, the maintenance of long-term care patients in a separate area of the hospital should be considered. While this is not a suggestion to return to the distinct-part concept, it results in the placement of long-term care patients, whose social and emotional needs are somewhat different from acute care patients, in a single area of the hospital. A day room or activity space should be a part of or readily accessible to such an area.
- (22) The findings suggest that physicians did not distinguish between the types of patients they admitted to SNFs and to UCIP hospitals under the swing-bed experiment. However, the implication that this reflects physician attitudes regarding the comparability of the quality of care between SNFs and UCIP hospitals must be qualified by the fact that the diagnostic categories used to derive these results may not be sufficiently sensitive to variations in service intensity requirements.
- (23) The absence of certain rehabilitation services and rehabilitative nursing may be detrimental to the quality of long-term care and it is recommended that certain steps be followed to ensure adequate long-term care over the course of time should the swing-bed program be implemented nationally. Specifically, it is suggested that hospitals have a two-year grace period during which the rehabilitation services, rehabilitative nursing, and patient activity space standards (SNF conditions of participation) be waived. The social service standard, however, should be

As indicated in (19), some types of patients should not be physically transferred. This suggestion pertains to those long-term care patients who would not be adversely affected by such a move.

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enforced immediately. Hospitals should be encouraged to provide rehabilitative nursing and physical activity space as soon as possible after entering the program. The two-year grace period would begin when a hospital (voluntarily) elects to participate in the swing-bed program. If the hospital elects to continue in the program after two years, it would be required to meet the rehabilitation and patient activity space standards. By this time, the results of the quality of care study of the swing-bed program in Texas, Iowa and South Dakota will be available and can be used to refine or alter these recommendations as appropriate.

- (24) It is reasonable to expect that nursing resources in swing-bed hospitals would be adequate. Total nursing time per long-term care patient day in swing-bed hospitals would be higher than or comparable to staffing time ratios associated with other long-term care facilities throughout the country. With suitable training and supervision, nurses should be able to provide rehabilitation services provided by specialized personnel in larger facilities.
- (25) Enlistment pressure was unique to this demonstration project and arose because of time constraints at the outset of the project. Nevertheless, it is anticipated that certain rural hospitals would not be interested in participating in a nationwide swing-bed program because of high or variable acute care occupancy, physician opposition, or the availability of adequate long-term care elsewhere in the community. Thus, the program should be optional, allowing hospitals to participate on a voluntary basis.
- (26) A more widespread swing-bed program should emphasize the distribution of clear, concise, written guidelines to hospitals before they begin admitting long-term care patients. Since the availability of swing beds would allow rural acute care hospitals to provide a type of care which may be totally new for such hospitals, various types of orientation programs and/or written guidelines are required.
- (27) Three specific groups of provider personnel should be the focus of orientation activities: hospital administrators, nurses, and physicians. Administrators should be acquainted with the general intent and management aspects of the program, with special emphasis on reimbursement procedures. While administrators may participate even if they expect no financial gains (many UCIP administrators saw the provision of long-term care as a community service), they are unlikely to participate if they expect to incur a financial loss due to inadequate reimbursement.

 Nursing personnel who have had no previous long-term care training or experience need information on the special problems of long-term care patients in acute care wards. It is important that physicians, as the principal agents in the referral and placement of patients, understand the positive features of the swing-bed approach. A well-planned orientation program

This recommendation is based on the evaluation team's experience to date with the Utah, Texas, Iowa, and South Dakota programs. It reflects concern regarding the quality of long-term care rather than conclusions that long-term care has not been adequately provided in swing-bed hospitals.

could accomplish all of these goals, reduce problems, and lead to the acceptance of the swing-bed concept at the hospital level.

B. RESEARCH IMPLICATIONS

The following recommendations for further research have been incorporated in the design of the evaluation of the swing-bed experiments currently taking place in Texas, Iowa, and South Dakota.

- (1) A more thorough assessment of the quality of long-term care provided in swing-bed hospitals should be undertaken. Such an assessment should identify which Medicare/Medicaid conditions of participation should be enforced if the program is implemented nationally.
- (2) The quality of care study should devote specific attention to the ramifications of the lack of rehabilitation services and rehabilitative nursing in participating hospitals. Since UCIP hospitals were not required to provide these services, attention should be directed toward how such services might be implemented in swing-bed hospitals.
- (3) A thorough study of the impact of the waivers of SNF conditions of participation on intermediate and personal care patients was not possible as part of the UCIP evaluation. However, services such as social services and activities space appear to be even more important for these patients than for skilled nursing care patients. Therefore, the conditions of participation which hospitals should meet if they wish to provide intermediate or personal care should be investigated.
- (4) Since only six hospitals were involved in the Nursing Observation Study, an additional time study should be conducted to verify the time ratios obtained through the evaluation discussed here.
- (5) A method to estimate the total increase in health care costs if a swing-bed program were implemented in rural communities throughout the country should be developed.
- (6) The cost finding approaches used in this study to determine the incremental cost of long-term care can be further refined in several ways.
 - (a) Better methods for separating fixed and variable costs should be developed which would allow better estimation of true incremental costs.
 - (b) The accuracy of the cost finding methods should be verified. One way to verify the cost finding methods is the "industrial engineering" approach proposed by the UCIP project staff. Such a study would entail both intensive on-site observations to determine the actual use of resources, such as nursing time and supplies by long-term care patients, and a thorough analysis of hospital records to determine costs attributable to long-term care. A second approach could entail the application of the more mathematically oriented estimation and prediction methods mentioned in Appendix D of Volume II.

- (c) Inflation adjustments which would be appropriate in applying such methods can be more accurately calculated if control hospitals are used. The control hospitals should be selected to minimize differences in cost structure between experimental and comparison facilities.
- (d) Techniques such as those given in (b) can be applied in a more detailed fashion at the individual cost center level. This would take into consideration different components of indirect cost centers, such as taxes, which may in actuality be fixed, but which were not and could not be separated from other costs as part of the cost finding methodology developed for the UCIP evaluation.
- (7) The utilization analyses conducted in this study should be refined by either an appropriate delineation of hospital service areas or an appropriate estimation of service area populations. Assessment of before/after utilization trends based on accurate per capita figures would be beneficial in projecting nationwide utilization patterns.
- (8) The level of long-term care which can be provided in acute care hospitals warrants further investigation. Whether or not acute care hospitals are an appropriate setting for intermediate and personal care patients, is still an open question.
- (9) The proportion of inpatients who should be long-term care patients in an acute care setting should be further investigated. The acute/long-term care mix necessary for maintaining an acute care orientation while providing cost-effective long-term care is not clear.
- (10) The effects of the swing-bed program on the provision of acute care and total hospital utilization should be verified in other states. Factors unique to the nature of the experimental program in Utah may have affected utilization of the project.
- (11) Utilization of swing-beds and associated cost behavior of rural hospitals with pre-existing skilled nursing beds should be assessed further. It was not possible in the UCIP study to separate long-term care patients from project patients in distinct-part hospitals, since all long-term care patients were aggregated for reporting purposes. Given the low ratio of distinct-part skilled nursing beds to total hospital beds in most rural communities throughout the country, this issue is not as important as the preceding ones. Yet, it should be addressed to determine whether hospitals with existing certified skilled nursing beds should be allowed to participate in a national program.





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